

Executive Summary

The 2007 TRI data represents the 21st year of data collection from facilities for distribution to the public, and the TRI program continues to fulfill its goal of providing chemical use, release, and management information to the public. The increased attention given to releases and management of chemicals through the TRI reporting requirements continues to drive an increase in knowledge about the releases, as well as efforts to achieve reductions in releases.

For 2007, total on-site releases reported in Delaware show a decrease of 4.4%. Although the decrease is driven by significant decreases in releases of nitrate compounds from two facilities, 8 facilities reported decreases in on-site releases of greater than 10,000 pounds. Overall, results from the 2007 TRI data show (most amounts rounded to the nearest 1,000 pounds):

- The total amount reported as released to water for 2007 decreased by 695,000 pounds (17%), compared to 2006. The largest change in this category was nitrate compounds released from the Premcor Delaware City refinery, which reported 424,000 pounds (15%) less than the 2006 amount, followed by the Perdue Georgetown facility, which reported a reduction of 183,000 pounds (27%). The Premcor change was not related to specific changes in their production of petrochemicals, but rather to more accurate reporting of this TRI compound. DNREC's Division of Water Resources is working with the refinery to implement a plan for further reductions of these releases. The Perdue reduction was the result of reduced nitrate concentrations and wastewater volume.
- The total amount released on-site to land decreased by 376,000 pounds (48%), largely the result of decreases in the reported amounts of by-products from coal combustion sent to on-site landfills in 2006, but now sent to off-site landfills, by the Indian River Power Plant.
- The total amount reported released on-site to air increased by 579,000 pounds (9%) for 2007, including hydrochloric acid reports from the Indian River Power Plant, increasing by 300,000 pounds (12%), and from the Edge Moor/Hay Road power plants, increasing by 180,000 pounds (13%) for 2007. These amounts are generally the result of increased power production at these facilities. Also, the reported on-site releases to air from the Premcor refinery increased by 113,000 pounds (26%). This was primarily because of the 136,000-pound increase in propylene reported released from the frozen earth storage unit, but partially offset by decreases in releases to air from other units in the refinery. The reported propylene release is the result of DNREC investigations that required the refinery to quantify releases from the storage unit. DNREC has issued an order to the refinery to replace the storage unit with alternative storage by May 1, 2010, and to close the frozen earth storage unit by December 15, 2010.
- The trend for on-site release of carcinogens continues its downward trend.
 - Reported releases of carcinogens (known, probable, and possible) fell by 150,000 pounds (39%) for 2007, a result of the above transfers off-site of carcinogens in ash from the Indian River Power Plant, and other smaller reductions.
 - Reported releases of vinyl acetate released to air fell by 15,000 pounds, 34% less than for 2006.
- The trend for on-site release of persistent bioaccumulative toxins (PBT's) is generally down, with some significant decreases:
 - Reports of all mercury released to air fell by 92 pounds (13%) for 2007.
 - Reports of elemental mercury released to air fell by 33 pounds (74%) to 11 pounds in 2007, following a decrease of 217 pounds (83%) for 2005-2006.

- Reports of mercury compounds released to air fell by 59 pounds (9%) compared to 2006.
- Reports of lead compounds released to land decreased to 14,605 pounds, down 15,546 pounds (52%) from the 30,151 pounds reported for 2006.

In summary, total on-site releases are down. On-site releases are down for water and land, but up for air. Additional detail regarding the changes noted above, as well as discussion related to specific facilities can be found in the facility profiles starting on page 18 of this report.

Introduction

What is the Toxics Release Inventory?

The Toxics Release Inventory, or TRI, is a publicly available data set containing information reported annually for toxic chemicals manufactured, processed, or otherwise used by certain facilities in Delaware and throughout the United States. Annually, these facilities report releases and waste management information for covered chemicals. The reportable list of toxic chemicals for 2007 included 581 individual chemicals and 30 chemical categories. TRI was established in 1986 under Title III, Section 313, of the Federal Superfund Amendments and Reauthorization Act (SARA 313) to provide information to the public about the presence and release of toxic chemicals in their communities. Title III is also known as the Emergency Planning and Community Right-to-Know Act (EPCRA). See Appendix A for more information.

Covered facilities report TRI information to the U.S. Environmental Protection Agency (EPA) and to the state in which the facility is located. In Delaware, the EPCRA Reporting Program within the Department of Natural Resources and Environmental Control (DNREC) receives and compiles TRI data from facilities located within the State. The EPCRA Reporting Program maintains a database that is updated as new reports and revisions to old reports are received. The database currently contains 21 years of reported data. Most releases reported under TRI are also regulated through Federal and/or State permits.

This report contains detail from every 2007 TRI report and report revision from Delaware facilities filed with and received by DNREC as of November 1, 2008. Facilities must submit these reports to DNREC and EPA by July 1 of each year. Several types of analyses are presented in this report based on this data and data from prior years.

A second, less detailed report that provides a summary of the data presented here is also available. See [Access to TRI Files](#) on page 55 for details.

Reporting Requirements

A facility is required to submit a report for a listed toxic chemical if the facility meets all of the following criteria:

1. Employs the equivalent of 10 or more full-time employees,
2. Is a covered industry, or is a Federal facility (See Table 1 on the next page for a list of reporting industries), and,
3. Manufactures or processes more than 25,000 pounds, or otherwise uses more than 10,000 pounds, of the listed toxic chemical during the course of the calendar year. Limits for specific chemicals known as PBTs (Persistent Bioaccumulative Toxics) are lower (see Table 7 on page 37).

Note that from time to time, the EPA proposes changes in reporting requirements. It gives agencies, reporting facilities, and other interested parties time to comment on these changes prior to making a final decision about the proposed change. See page 5 for more details. Facilities that meet the criteria for reporting must submit one report for each listed toxic chemical manufactured, processed, or otherwise used above threshold quantities. The reports cover activities during the previous calendar year.

It is important to note that a facility may need to report even if it has no releases of toxic chemicals, because reporting is based on the amount manufactured, processed, or otherwise used, and not the amount released.

Table 1 provides a list of covered industries reporting to the Delaware TRI program for 2007 along with corresponding three primary digits of the North American Industrial Classification System (NAICS) Codes. The 6-digit NAICS codes are used to identify the type of activities performed at a facility. Each industry sector represented by facilities reporting in Delaware for 2007 is described in Table 5 on page 16. The NAICS codes were used in TRI for the first time in 2006 to provide more discrimination between the various industry sectors reporting to TRI. They do not correspond directly to the Standard Industrial Classification (SIC) codes that were in use since the beginning of the program. Because of the diversity of industries reporting to TRI and the differences in code definitions, all the facilities that were in a particular SIC code may not remain together in a NAICS code.

The standard Form R report (see Appendix M for Form) contains general facility information and data about on-site releases, off-site transfers, and on-site waste management activities. In lieu of Form R, the optional short form (Form A, Appendix N) may be used, provided certain criteria are met. Form A, initiated in the 1997 reporting year, is a two-page report that provides facility information (essentially the same as Form R) and identification of the chemical, but does not provide any release, transfer, or waste management data. After a facility determines that it must report on a given chemical, the facility is eligible to use Form A if:

For Persistent Bioaccumulative Toxic (PBT) Chemicals except dioxins:

1. The total annual release amount is zero, and
2. The annual sum of the energy recovery, recycle, and treatment amounts managed on- and off-site (PBT Reportable Amount) does not exceed 500 pounds, and
3. The total annual amount of the chemical manufactured, processed, or otherwise used does not exceed 1,000,000 pounds.
4. Dioxins and dioxin-like compounds in any amount may not be reported on Form A.

**TABLE 1
COVERED INDUSTRIES**

NAICS CODES	INDUSTRY
212	Mining
221	Utilities
311	Food Manufacturing
313	Textile Products Mfg.
324	Petroleum and Coal Products Mfg.
325	Chemical Manufacturing
326	Plastics and Rubber Manufacturing
331	Primary Metal Manufacturing
332	Fabricated Metal product Mfg.
333	Equipment Mfg.
334	Computer and Electronic Product Mfg.
335	Electrical Equipment Mfg.
336	Transportation Equipment Mfg.
337	Furniture Manufacturing
339	Misc. Manufacturing
424	Wholesalers, Non-Durable Goods
454	Non-Store Retailers
928	National Security

For non-PBT chemicals:

1. The total annual reportable amount (including the sum of on- and off-site releases, disposal, treatment, recovery for recycle or energy) is less than 5,000 pounds, and
2. The total amount of on-site releases is less than 2,000 pounds, and
3. The total annual amount of the chemical manufactured, processed, or otherwise used does not exceed 1,000,000 pounds.

Limitations of TRI Data

The user of TRI data should be aware of its limitations in order to interpret its significance accurately.

- **NOT ALL FACILITIES ARE REQUIRED TO REPORT.** A relatively small number of facilities in Delaware are required to report under TRI, based on the criteria listed on pages 2-4. TRI facilities are primarily industrial/manufacturing facilities and facilities report releases and other waste management activity to TRI. TRI does not account for amounts of hazardous material stored at facilities. The DNREC program addressing inventories of material stored on site, the Hazardous Chemical Reporting program known as “Tier II” (also administered under EPCRA), includes a much greater number of facilities. Facilities report amounts and the location of chemicals stored on-site to Tier II, but not releases. For further information, see *Hazardous Chemical Reporting* in Appendix A.
- **OTHER SOURCES NOT COVERED UNDER TRI ALSO RELEASE TOXIC CHEMICALS.** Other significant sources of pollution include small businesses, motor vehicles, and agricultural operations, as examples. For some chemicals, their use as consumer products is a significant source of releases.
- **FACILITIES ARE REQUIRED TO BASE TRI DATA ON MEASUREMENTS AND MONITORING DATA IF THESE ARE AVAILABLE AT THE FACILITY.** If such data is not available, quantities may be estimated based on published emission factors, mass balance calculations, or good engineering judgment. Additional monitoring equipment and measurements are not required. For 2007, 7% of the reports representing 14% of reported on-site release amounts were estimated using monitoring data, with the balance being split between emission factors, mass balance calculations, and other methods.
- **THE DATA ESTIMATION METHODS MAY CHANGE OR VARY.** The methods of estimating, analytical methodology, or basis of calculating data used by different facilities, or even the same facility over time, may vary, and may result in significant changes in reporting while the actual release may remain relatively unchanged. DNREC performs cross-checks of the data with other information sources to verify its accuracy and contacts facilities concerning apparent discrepancies.
- **REVISIONS TO FORM R DATA MAY OCCUR AT ANY TIME.** These revisions sometimes involve significant changes for data previously reported by a facility.
- **THE DATA DOES NOT INDICATE AMOUNT OF HUMAN EXPOSURE.** An important consideration to keep in mind is that TRI does not provide an indication of potential exposure to the reported releases and cannot be used by itself to determine the impact on public health. The chemical's release rate, toxicity, and environmental fate, as well as local weather and wind direction and the proximity of nearby communities to the release must be considered when assessing exposures. Small releases of highly toxic chemicals may pose greater risks than large releases of less toxic chemicals. The potential for exposure increases the longer the chemical remains unchanged in the environment.

Some chemicals may quickly break down into less toxic forms, while others may accumulate in the environment, becoming a potential source of long-term exposure. The chemical exposure of a population depends on the environmental media (air, water, land) into which the chemical is released. The media also affects the type of exposure possible, such as inhalation, dermal exposure, or ingestion.

Despite these limitations, TRI serves as a valuable screening tool to identify areas of concern that may require further investigation.

Recent Developments in TRI Reporting

The TRI reporting requirements change as EPA seeks to improve the program through changes to the list of reportable chemicals and through program expansions. Because of these changes, considerable caution must be exercised when comparing TRI data from previous years. Some of the data presented later in this report will be adjusted for changes that have been made in order to present the data on a more constant reporting basis from year to year. Notations will be made to indicate which data is presented with these adjustments.

- **Chemical List Changes**

For reporting year 1995 and beyond, EPA significantly expanded the list of chemicals. For reporting year 2000 and beyond EPA established substantially lower reporting thresholds for 15 chemicals and 2 chemical categories that are highly persistent and bioaccumulative in the environment (PBTs). See page 37 for details on these reports.

- **Industry Expansion**

Beginning with the 1998 reporting year, EPA added seven industries to the list of facilities covered under TRI. Prior to the 1998 reporting year, only manufacturers (SIC codes 2000-3999) and Federal facilities were required to report (See Table 1 on page 3). The greatest impact to Delaware is the Electric Utilities (NAICS 221). The industry expansion significantly increased the amount of reported releases. This did not necessarily represent an increase in toxic releases in Delaware, but rather provided additional information to the public.

- **SIC/NAICS**

Starting in the 2006 reporting year, four-digit facility SIC (Standard Industrial Classification) codes were phased out and replaced with six-digit NAICS (North American Industry Classification System) codes. Facilities should not be added or removed from TRI reporting because of this change. See page 3 for a table listing of the primary NAICS codes reported to the Delaware TRI program for 2007, and additional discussion about NAICS.

- **Form A Threshold Change for the 2006 Reporting Year**

EPA has enacted a change to the TRI Form A reporting requirements. See pages 3 and 4 for a description of Form A and Form R and their reporting thresholds, and Appendices M and N for copies of the reporting forms. Because of the potential loss of data associated with the conversion of current Form R reports to Form A reports, DNREC continues to oppose this new rule, and we have been working with the reporting facilities to emphasize the importance of continuing to report on Form R. We have received the second year of reports under this new rule and see that Delaware had a decrease of eight Form A reports for 2006 and one Form A report for 2007.

• Dioxin and Dioxin-Like Compounds for the 2008 Reporting Year

There are seventeen distinct members of this chemical category listed under TRI. On May 10, 2007, the EPA Toxics Release Inventory Program issued a final rule expanding reporting requirements for the dioxin and dioxin-like compounds category. The final rule requires that, in addition to the total grams released for the entire category, facilities must report the quantity for each individual member on a new Form. EPA will then use the individual mass quantity data to calculate Toxic Equivalent Quantity (TEQ) values that will be made available to the public along with the mass data. The reporting requirements of the final rule apply to the 2008 reporting year beginning January 1, 2008, (for which reports are due July 1, 2009), and to subsequent reporting years.

2007 Data Summary

TABLE 2
2007 TRI DATA SUMMARY
(IN POUNDS)

	2007
No. of Facilities	69
No of Form As	44
No of Form Rs	294
No. of Chemicals	102
On-site Releases	
Air	6,920,246
Water	3,327,675
Land	406,188
Total On-Site Releases	10,654,109
Off-site Transfers	
POTW's	1,243,120
Recycle	8,179,183
Energy Recovery	4,910,600
Treatment	171,044
Disposal	7,144,231
Total Off-Site Transfers	21,648,179
On-site Waste Mgmt.	
Recycle	10,945,896
Energy Recovery	20,387,061
Treatment	39,879,302
Total On-Site Mgmt.	71,212,259
Total Waste	103,514,547

Statewide totals of reported 2007 TRI on-site releases, off-site transfers, and wastes managed on-site are shown in Table 2. On-site releases were lower by 4.4% (491,000 pounds) compared to 2006. Increased accuracy in reporting the data (water discharge monitoring) accounts for most of the decrease, while changes in raw materials, pollution controls, and production levels at other facilities account for both decreases and increases. A total of 69 facilities submitted 338 reports on 102 different chemicals. Of the 338 reports, 44 were submitted using Form A. Ammonia, benzo (g,h,i) perylene, polycyclic aromatic compounds, methanol, and zinc, lead, and manganese compounds all had greater than 10 reports. Releases to air, led by acid gases, constitute the largest portion of the total on-site releases. Nitrate compound releases to water made up the largest decrease.

Types of Data

Table 2 lists all the categories of data reported to Delaware and EPA under the TRI program. Within the reports received from facilities, the data is broken down into additional sub-categories. For ease of presentation in this report, the data has been grouped into these categories as described below.

On-Site Releases: There are four categories, but one of these, **underground injection** of TRI chemical waste to wells, is not permitted in Delaware. On-site releases in Delaware are to **air**, **water**, or **land**. The **release to air** category includes stack releases collected by mechanical means such as vents, ducts, or pipes, and fugitive releases escaping collection, including equipment leaks and evaporation, and is released into the general atmosphere. **Releases to water** are to water bodies, including streams, rivers, lakes, bays, or oceans. This includes releases from contained sources, such as industrial process outflow or open trenches. Releases to water which contain TRI-reportable chemicals in runoff and storm water runoff are also reportable.

Releases to land are to (1) RCRA (Resource Conservation and Recovery Act) landfills, in which wastes are buried, (2) surface impoundments, which are uncovered holding areas used to volatilize and/or settle waste materials, (3) other land disposal such as waste piles or releases to land such as spills or leaks, (4) land application/treatment in which waste containing a listed chemical is applied to or incorporated into soil, and (5) other non-RCRA landfills.

Off-site Transfers: Off-site transfers include transfer of chemical waste to **POTWs** (publicly owned wastewater treatment plants), **recycle** operations (5 types), **energy recovery** operations (2 types), **treatment** operations (6 types), and **disposal** (14 types). The receiving facilities are separate from the facility generating the waste. This total of 27 sub-categories is provided for the purpose of classifying the types of final off-site waste management undertaken for each chemical.

On-site Waste Management: Waste management operations at the facility generating the waste are categorized to include **recycle**, **energy recovery**, and **treatment**.

On-Site Releases

On-site TRI releases are emissions from a facility to the environment because of normal operations, including emissions to the air, discharges to surface water, disposal onto or into the ground, and under-ground injection. Under-ground injection is not an approved method of TRI or hazardous waste disposal in Delaware, and thus has not been reported by any facility in Delaware since TRI reporting began. Total on-site releases to air, water, and land reported to TRI in 2007 made up 10% of all TRI-reported waste amounts.

**FIGURE 1
2007 ON SITE RELEASES**

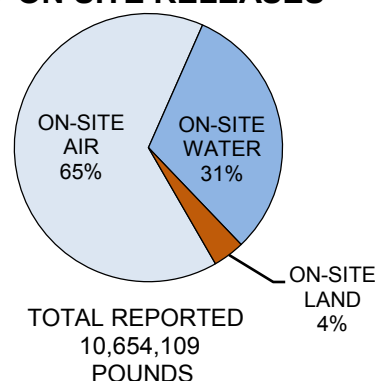
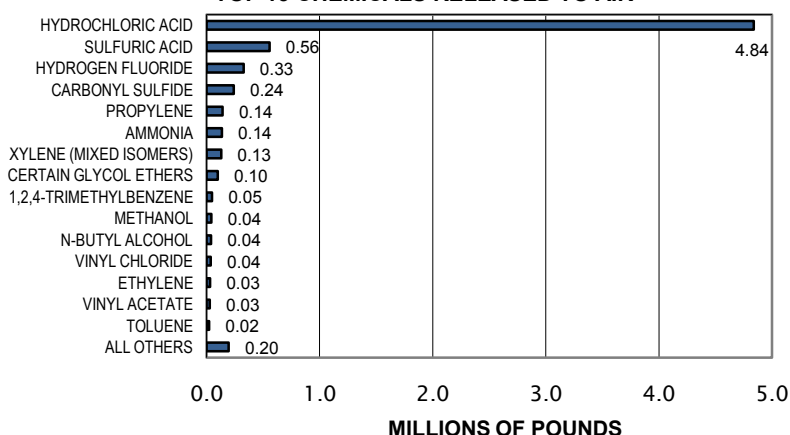


Figure 1 shows the on-site releases reported in the State. A large portion, 65% of the total on-site release, is to air. Additional analysis of on-site releases is presented in Figures 2, 3, and 4, which show the top 15 chemicals released to air, water, and land. Additional detail about on-site releases can be found in Appendices C, E, F, and H.

Releases to Air

Figure 2 provides an illustration of the relative release of the top 15 chemicals compared to all other 72 chemicals

**FIGURE 2
TOP 15 CHEMICALS RELEASED TO AIR**



reported as released in 2007 to the air. The remaining 15 chemicals had no releases to air. As in all the years following the inclusion of the power generating facilities, acid gases top the list. Specifically, hydrochloric and sulfuric acid aerosols (gases) and hydrogen fluoride are released from power generating facilities located in all three counties. These three chemicals comprise 83% of all Delaware-reported TRI on-site releases to air. Two facilities reported carbonyl sulfide, which accounted for 3.5% of all releases to air. DuPont Edge Moor was the primary reporter of this chemical. The Premcor refinery, the only reporter of propylene, reported a significant increase in this release to air, as the refinery began to use new data to estimate the release amount from its Frozen Earth Storage system. Propylene accounted for 2.1% of all on-site releases to air for 2007. Ten facilities reported ammonia, which accounted for 2.0% of all on-site air releases. Ammonia is released from petrochemical, food processing, and chemical facilities. It is used in refrigeration systems and is a by-product of air pollution control activities, primarily at electric generating facilities. Xylene and certain glycol ethers are primarily used as solvents in paints for the automobile manufacturing industry. The Chrysler and General Motors automobile assembly facilities accounted for most of these releases. Eight facilities reported xylene, (1.9% of total on-site releases to air), and six facilities reported on certain glycol ethers (1.4% of on-site releases to air). Three facilities reported 1,2,4-trimethylbenzene releases to air, (0.7% of total release to air), with General Motors reporting 70% of the total release of this chemical.

Releases to Water

As can be seen in Figure 1 on page 7, releases to water were lower than releases to air. On-site releases to water make up 31% of the total on-site releases compared to 65% for air.

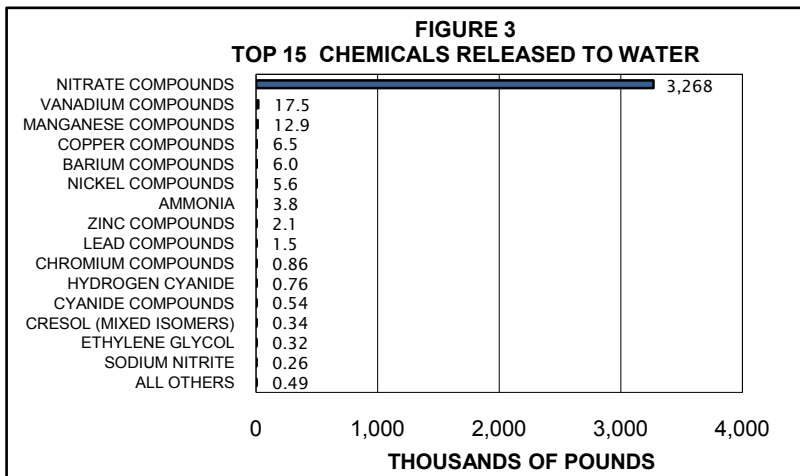
TABLE 3
TRI CHEMICALS RELEASED TO WATER BY WATER BODY

WATER BODY	NO. OF FACILITIES	NO. OF REPORTS	RELEASE (IN POUNDS)
DELAWARE RIVER	8	72	2,374,922
DRAWYER CREEK TRIBUTARY	1	2	24
ISLAND CREEK	1	10	4,715
MCKEE RUN	1	3	0
MUDDY RUN	1	1	0
NAAMANS CREEK	1	6	341
NANTICOKE RIVER	1	12	460,267
RED LION CREEK	1	1	2
SANDY BRANCH	1	1	4
SAVANNAH DITCH	1	2	487,400
STATE TOTAL	17	110	3,327,675

Table 3 shows the amount of TRI chemicals released to each water body that received a TRI chemical. Figure 3 below shows the relative relationship of the top 15 TRI chemicals to the 15 other chemicals reported as released to water. This clearly shows the influence that nitrate compounds have on the total. The three reporters of nitrate compounds, Premcor, Perdue Georgetown, and INVISTA,

reported a total decrease of 527,000 pounds. These were part of the releases to the Delaware River and the Nanticoke River. More details of these releases can be found in their facility profiles on pages 19, 21 and 22. Figure 3 shows that nitrate compounds were the top chemical released, (98% of the total release to water), followed by vanadium compounds (0.53%), and manganese compounds

FIGURE 3
TOP 15 CHEMICALS RELEASED TO WATER



(0.39%). The remaining chemicals released to water were each less than 0.20% of total releases to water. The biological treatment of nitrogen-containing materials such as ammonia and animal waste is responsible for the formation of nitrate compounds. Premcor reported 2,321,000 pounds of nitrate compounds released to water. Premcor changed its sampling method for 2006 by taking more frequent samples during normal periods of operation. This change led to the discovery that the previous method was not as accurate, so the new, more accurate amounts were reported. In 2007, the frequency was increased further, to provide additional accuracy. Perdue Georgetown was the second largest reporter of nitrate compounds at 487,000 pounds, and INVISTA reported 460,000 pounds. Vanadium and manganese compounds are products of petroleum refining, coal and oil combustion, and ore processing. Vanadium compounds were released to water largely (95%) by the Premcor refinery. Manganese compounds were released to water primarily by DuPont Edge Moor and the Premcor refinery. DuPont reported 80% of the manganese compounds released to water, with Premcor contributing 15%. Metallic (antimony, barium, cobalt, chromium, copper, lead, manganese, mercury, nickel, vanadium, zinc) compounds are generally products of fuel combustion and ore refining. The DuPont Edge Moor, Edge Moor/Hay Road Power Plants, Indian River Power Plant, and the Premcor Refinery are the primary facilities releasing these compounds to water. Ammonia is the by-product of pollution control activities and waste treatment. Premcor reported 97% of the ammonia releases to water.

Not every report to a water body in Table 3 shows a release quantity. For example, of the 72 reports listing the Delaware River as their destination or possible destination watershed, only 54 reports show an actual release quantity to the Delaware River. The other 18 met the TRI reporting requirements and had the potential to release to the river and may have released chemicals to other media (air or land), but did not report any amounts actually released to the river. In Delaware, 37 of the 110 reports listing a water body as a possible destination for a release to water did not report any quantities actually released to that water body.

Table 4 shows the total amount of TRI chemicals for 2007 released to each basin in the State of Delaware. The Piedmont Basin contains lands that drain into the portion of the Delaware River above the City of New Castle, and the Inland Bays include lands that drain into the Indian River Bay/ Rehoboth Bay area, then to the Atlantic Ocean. All the receiving streams except the Nanticoke River eventually feed into the Delaware Bay. The total amount released to water decreased by 695,000 pounds in 2007, largely the result of decreases reported by Premcor and Perdue Georgetown. Additional discussion about these releases can be found in the Trend Analysis Section starting on page 44 and in the facility profiles starting on page 18.

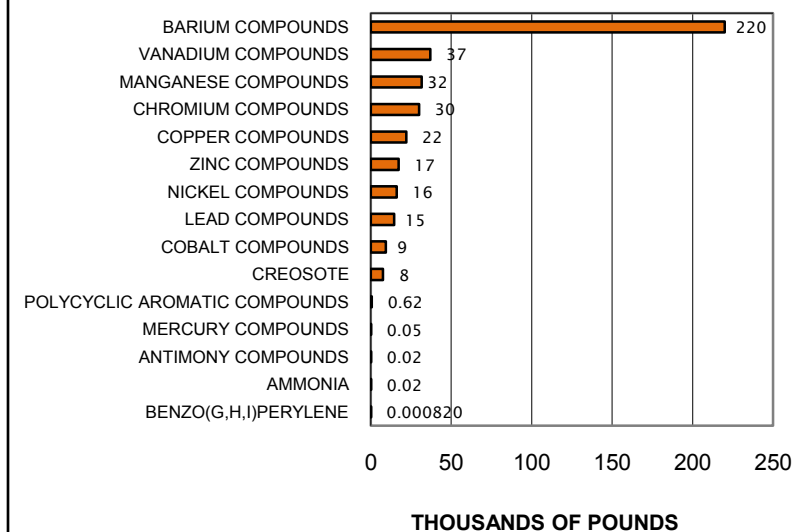
TABLE 4
TRI CHEMICALS
RELEASED TO WATER BY BASIN

BASIN	RELEASE (IN POUNDS)	PERCENT
CHESAPEAKE	460,267	13.8%
DELAWARE BAY	2,837,946	85.3%
INLAND BAYS	4,719	0.1%
PIEDMONT	24,743	0.7%
STATE TOTAL	3,327,675	100.0%

Releases to Land

Releases to land as shown in Figure 1 on page 7, are relatively small, amounting to 4% of total on-site releases. Figure 4 on page 10 shows the relative contribution for all 15 chemicals reported as being released to land. Nearly all the releases to land are metals and metal compounds except for the small quantities of ammonia, creosote, PACs, and benzo (g,h,i) perylene (0.00082 pounds). Most of the metals and metal compounds reported are formed during the combustion process from metal impurities that exist in coal or oil.

**FIGURE 4
TOP 15 CHEMICALS RELEASED TO LAND**



Barium compounds now comprise 54% of the total releases to land, and all metal compounds compose 98.0% of all releases to land. Releases to land by the Indian River Power Plant and INVISTA facilities, generally the metallic compounds (antimony, barium, cobalt, chromium, copper, lead, manganese, mercury, nickel, vanadium, zinc) shown above account for 97.7% of the total releases to land. Additional discussion about these releases to land and their trends can be found in the Trend Analysis Section starting on page 44.

Descriptions about some of the hazards these chemicals may present can be found in Appendix K.

Off-Site Transfers

Off-site transfers are material transfers to off-site locations for the purpose of disposal, recycling, energy recovery, or treatment. Treatment could be at a private waste treatment facility or at a publicly owned treatment works (POTW), typically a municipal wastewater treatment plant. The amounts of chemical wastes transferred off-site are more than twice the amounts released on-site.

**FIGURE 5
2007 OFF-SITE TRANSFERS**

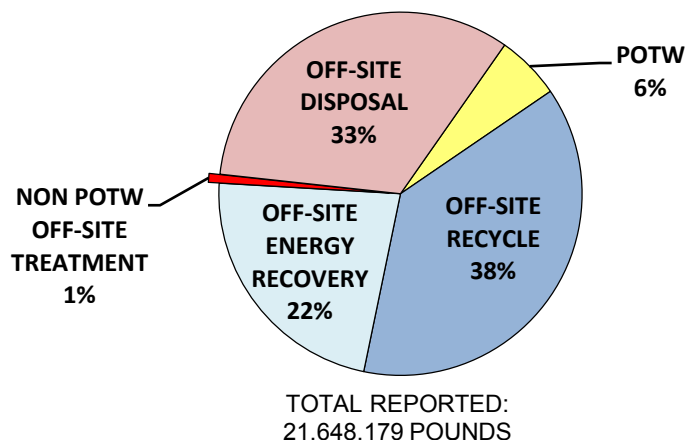


Figure 5 shows the relative portions transferred to the five off-site transfer categories. Table 2 on page 6 shows these amounts in tabular form, and Appendices D and G provide additional detail for transfers from each facility.

TRI chemicals in wastes are transported by various means from Delaware to their final destinations, many of which are out-of-state. TRI chemicals were sent to 23 states, some as far away as Wisconsin and Texas, and also to China and

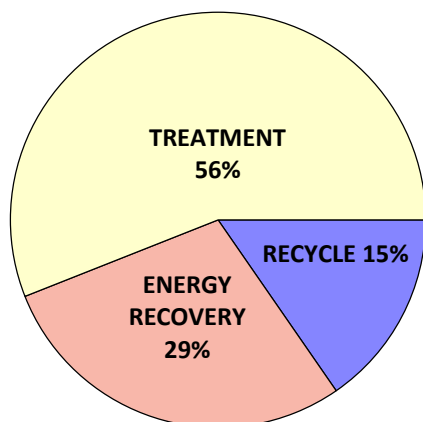
Canada, in addition to locations in Delaware. Over 92% of TRI chemicals in all wastes and over 98% of non-POTW wastes transferred off-site were sent to out-of-state locations for further processing and/or disposal.

While on-site releases account for 10% of total TRI waste, reported off-site transfers account for 21% of the total TRI wastes. See Figure 5 on page 10 for detail. Off-site transfer to recycle operations accounted for 38% of the amounts within the five categories in off-site transfers, and disposals accounted for 33% of the transfers. Eighty-one percent of the transfers to POTWs were to the City of Wilmington POTW, and all but 13,945 pounds of the 1,243,120 pounds treated at all POTWs were treated at Delaware POTW facilities. Ciba, Rohm & Haas, Air Liquide Medal, and Chrysler combined for 82% of the total TRI transfers to the Wilmington POTW.

See page 49 for more information on Delaware facilities receiving TRI chemicals from other Delaware TRI facilities and from out-of-state TRI facilities.

On-Site Waste Management

FIGURE 6
2007 ON-SITE WASTE MANAGEMENT



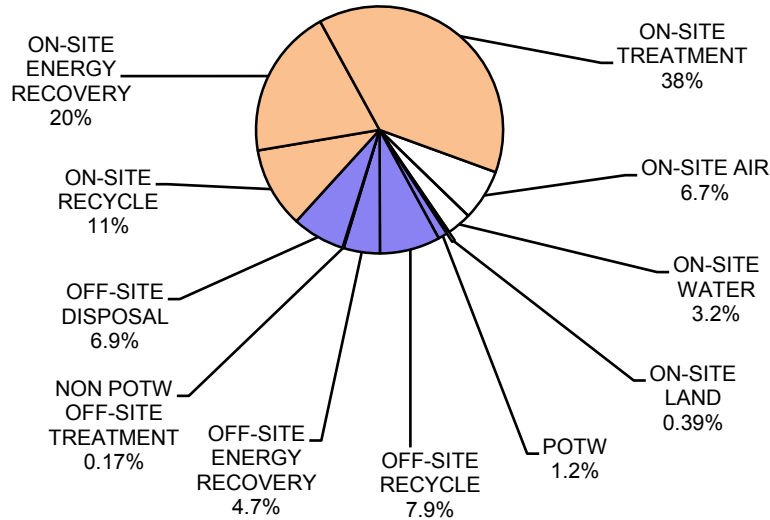
TOTAL REPORTED:
71,212,259 POUNDS

On-Site Waste Management is the amount of waste that never leaves the facility site and is managed by the facility on-site. The categories of **Recycle, Energy Recovery, and Treatment** are used to define on-site management activities related to TRI chemical wastes. The total amount of TRI chemicals managed on-site is 69% of the total TRI chemical waste. This amount is almost seven times the amount of on-site releases. Figure 6 shows the portions of these wastes processed on-site. Appendices D and G provide additional detail about management of this chemical waste. **Recycled** waste is the quantity of the toxic material recovered at the facility and made available for further use. **Energy Recovery** includes the quantity of toxic material that had heat value and was combusted in some form of energy

recovery device such as a furnace. The **Waste Treatment** segment includes the amount of toxic material that was destroyed in on-site waste treatment operations. Premcor, DuPont Edge Moor, Rohm & Haas, Medal, Dow Reichhold, and the Indian River Power Plant have the highest total amounts of on-site waste management.

Total Waste

**FIGURE 7
TOTAL 2007 TRI CHEMICAL MANAGEMENT**



TOTAL REPORTED: 103,514,547 POUNDS

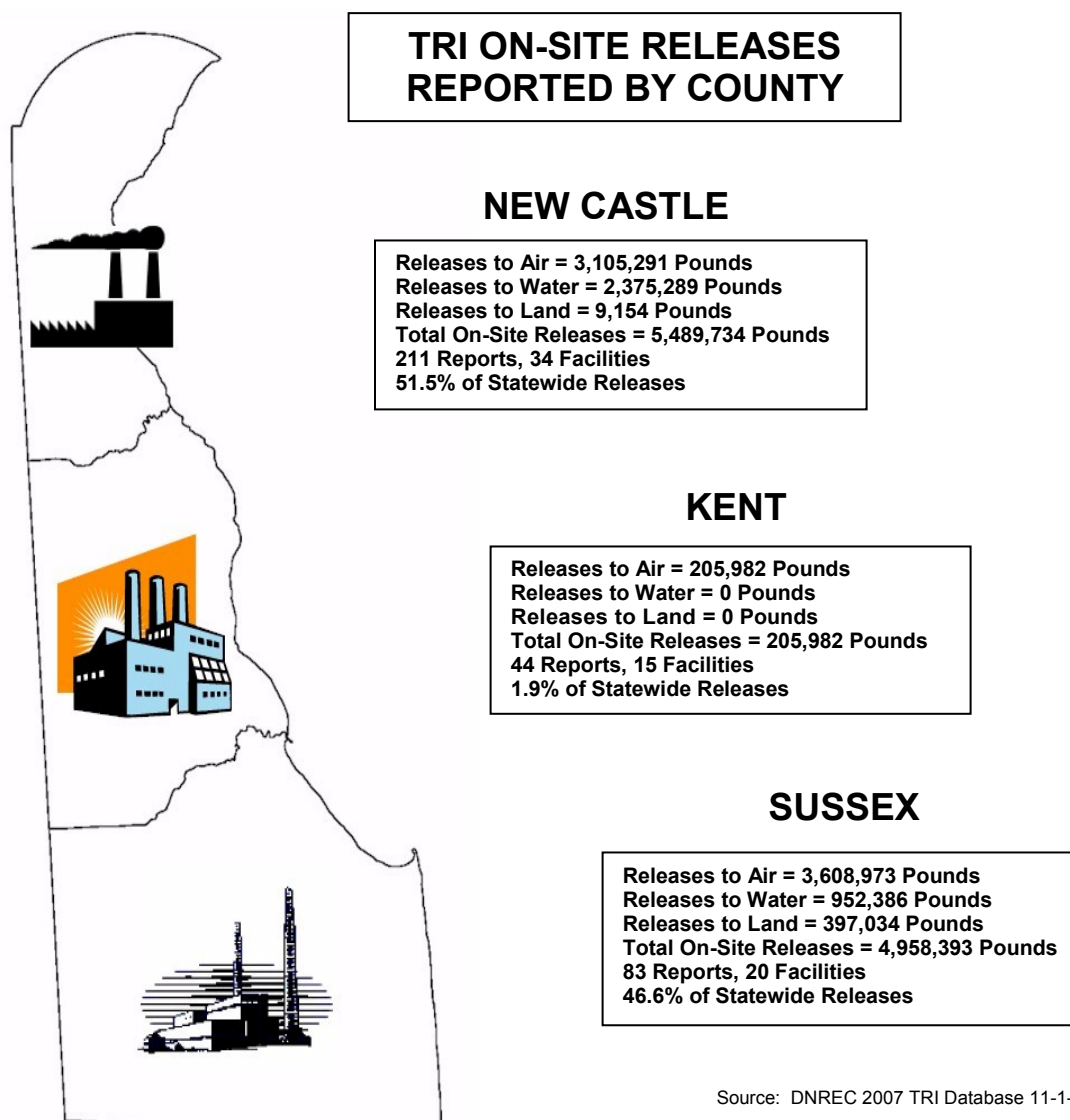
Total waste is the combined total of the on-site release, off-site transfer, and on-site waste management portions of the TRI chemical report. Figure 7 provides a perspective of the total TRI chemical waste picture in Delaware. About 10% of the total reported TRI waste is released on-site, 21% is transferred off-site, and 69% is managed on-site through treatment, energy recovery, and recycling operations by the facilities generating the waste. Figure 7 shows the relative portions of each major and sub-segment of TRI waste management.

2007 Data Detail

On-Site Releases by County

Figure 8 below provides basic on-site release information for each county in the State.

FIGURE 8

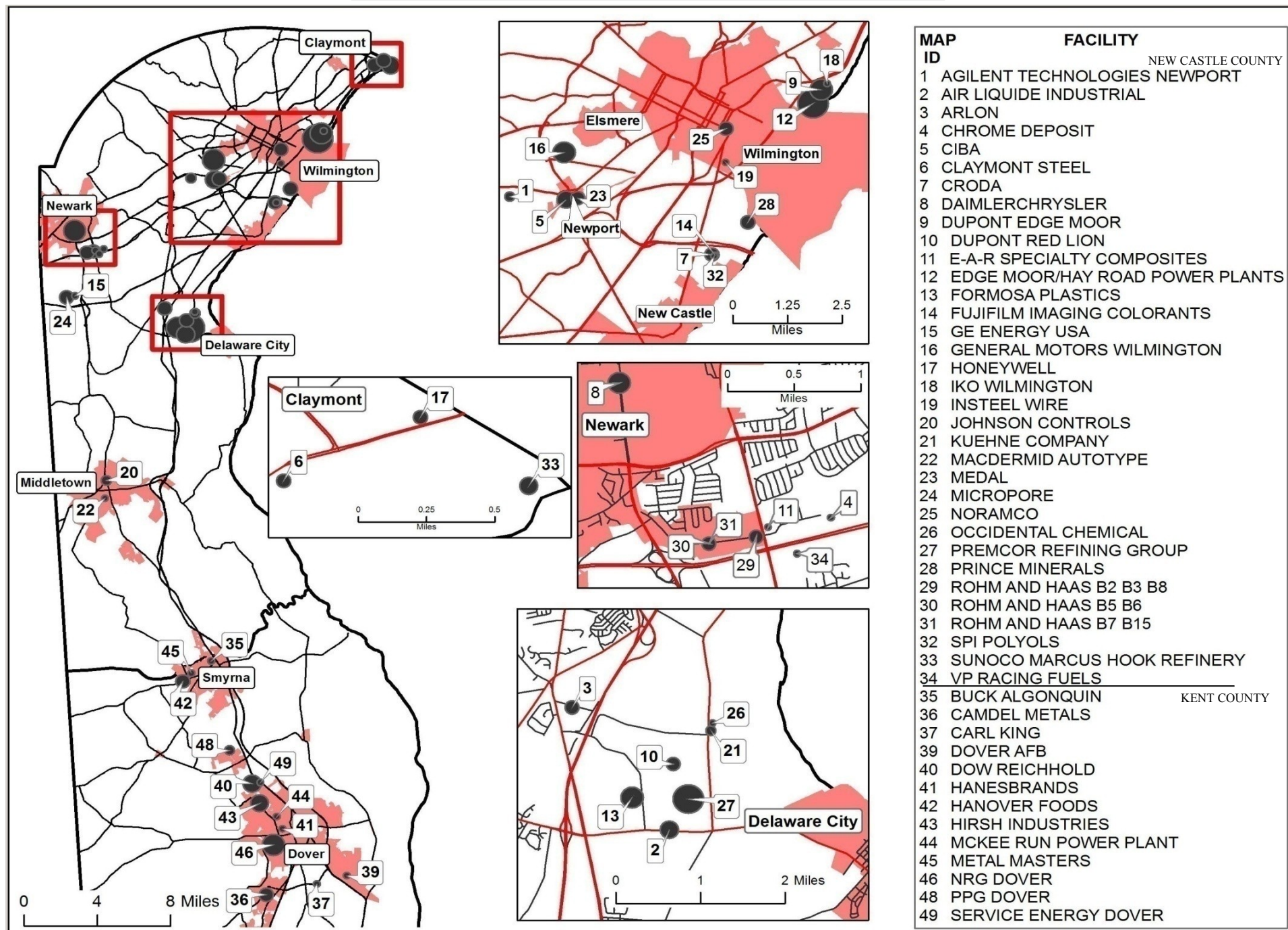


Source: DNREC 2007 TRI Database 11-1-08

Facility Locations

Figure 9 on the following two pages provides the location of each reporting facility in the State. The size of the facility location marker depicts the size of its on-site release relative to other facilities in the State. Facility contact information is in Appendix B.

FIGURE 9 TRI FACILITY LOCATOR MAP



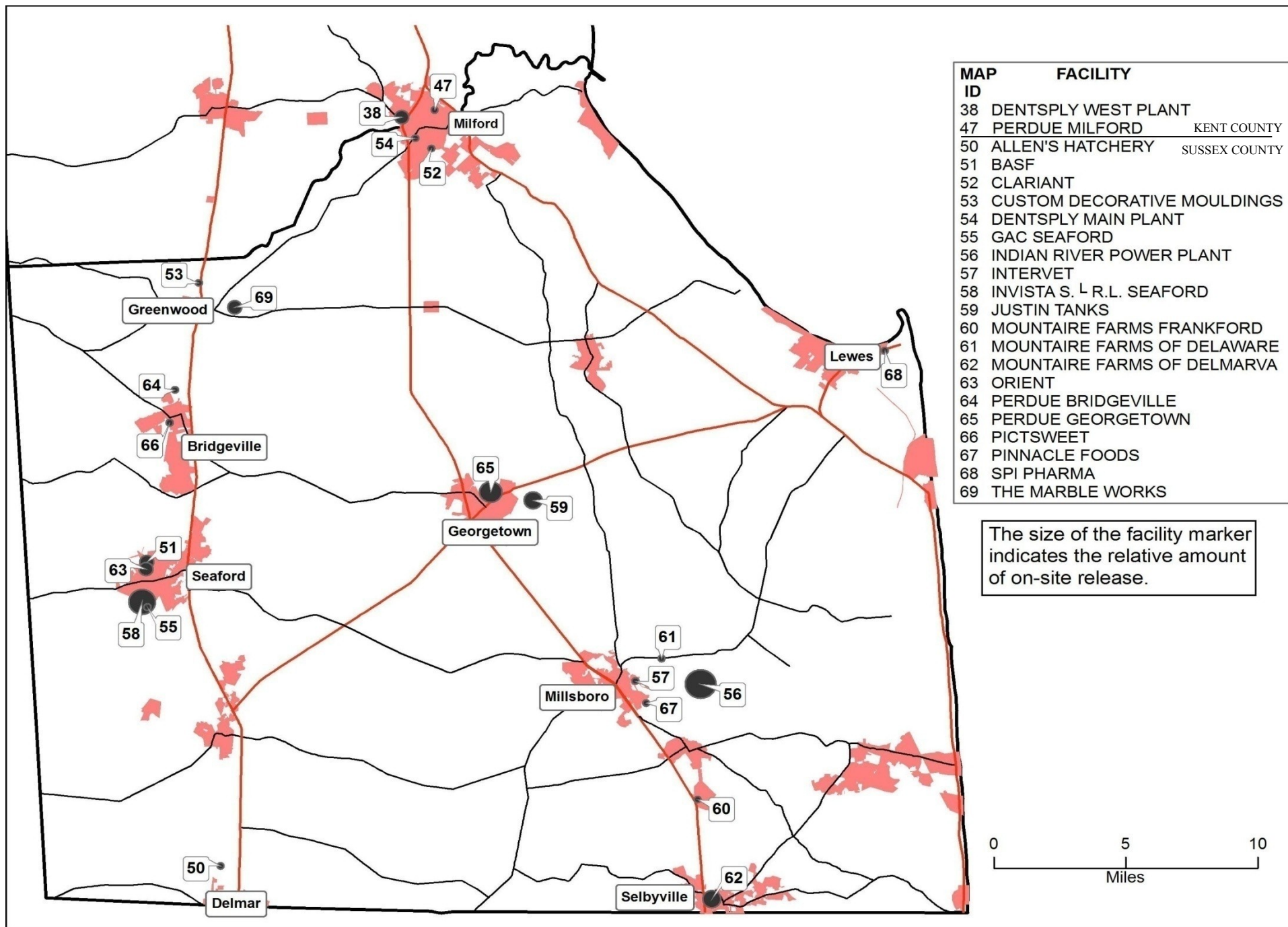


FIGURE 9 TRI FACILITY LOCATOR MAP

NAICS Industry Groups

Table 5 provides a description of each North American Industrial Classification System (NAICS) industry group and the number of facilities in each group that reported in Delaware, along with the total reported amounts for each NAICS code. Starting with the 2006 reporting year, NAICS codes replaced the SIC (Standard Industrial Classification) codes. This table also provides on-site releases, off-site transfers, and wastes managed on-site for each group.

TABLE 5
2007 TRI DATA BY PRIMARY NAICS GROUP

(in pounds)

NAICS CODE	INDUSTRY GROUP	NUMBER OF REPORTS	NUMBER OF FACILITIES	FORM A	FORM R	ON-SITE RELEASE	OFF SITE TRANSFERS	ON-SITE WASTE MGMT.
212	Mining	4	1	0	4	1,448	0	0
221	Utilities	43	4	1	42	5,617,410	779,625	1,330,374
311	Food Manufacturing	33	10	20	13	511,712	5,017	64,000
313	Textile Products Mfg.	5	2	1	4	4,187	876,369	5,118,558
324	Petroleum & Coal Products Mfg.	55	5	6	49	2,928,655	427,227	36,743,618
325	Chemical Manufacturing	119	23	10	109	1,181,839	12,531,890	23,544,375
326	Plastics & Rubber Mfg.	11	6	1	10	26,556	210,685	4,237,024
331	Primary Metal Manufacturing	13	3	0	13	15,878	2,754,618	0
332	Fabricated Metal product Mfg.	5	3	0	5	6	369,644	1,200
333	Equipment Mfg.	1	1	0	1	7,800	0	110
334	Computer and Electronic Product Mfg.	1	1	0	1	1	398	0
335	Electrical Equipment Mfg.	2	1	0	2	480	2,928,068	0
336	Transportation Equipment Mfg.	31	2	0	31	338,159	613,933	173,000
337	Furniture Manufacturing	1	1	0	1	12,481	0	0
339	Misc. Manufacturing	7	3	0	7	7,458	150,705	0
424	Wholesalers, Non-Durable Goods	2	1	2	0	0	0	0
454	Non-Store Retailers	3	1	3	0	0	0	0
928	National Security	2	1	0	2	41	0	0
	TOTAL	338	69	44	294	10,654,109	21,648,179	71,212,259

FIGURE 10
TOP 5 NAICS INDUSTRIES FOR 2007
PERCENT ON-SITE RELEASE

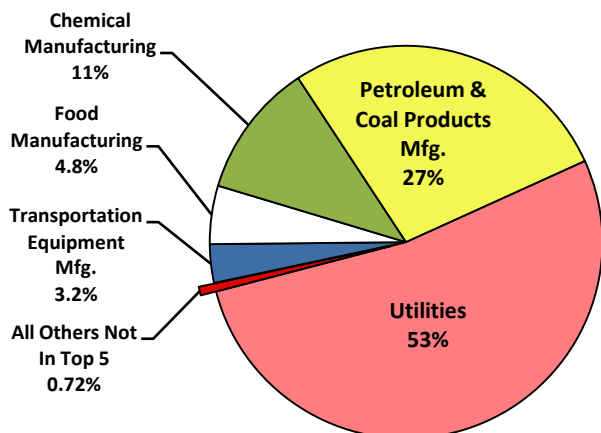


Figure 10 shows the percent contribution of each of the top five NAICS groups and all others not in the top five compared to the reported total on-site releases. Three of these top five - NAICS groups 221 (Utilities), 324 (Petroleum and Coal Products Mfg.), and 325 (Chemical Mfg.) combine for 91% of the total on-site releases within the State. Facilities not in the top five NAICS industry groups reported contributions of only 76,335 pounds on-site, or 0.72% of the on-site release total.

RELEASES FROM THE TOP 15 FACILITIES

Figure 11 shows the relative contribution of each of the top 15 reporting facilities to on-site releases. The top four facilities are, or have as a significant portion of their facility, an energy generating operation. Of the 10,654,237 pounds that were reported released on-site by all 69 facilities Statewide, the top 15 facilities accounted for 10,536,702 pounds, or 98.9% of the total on-site releases.

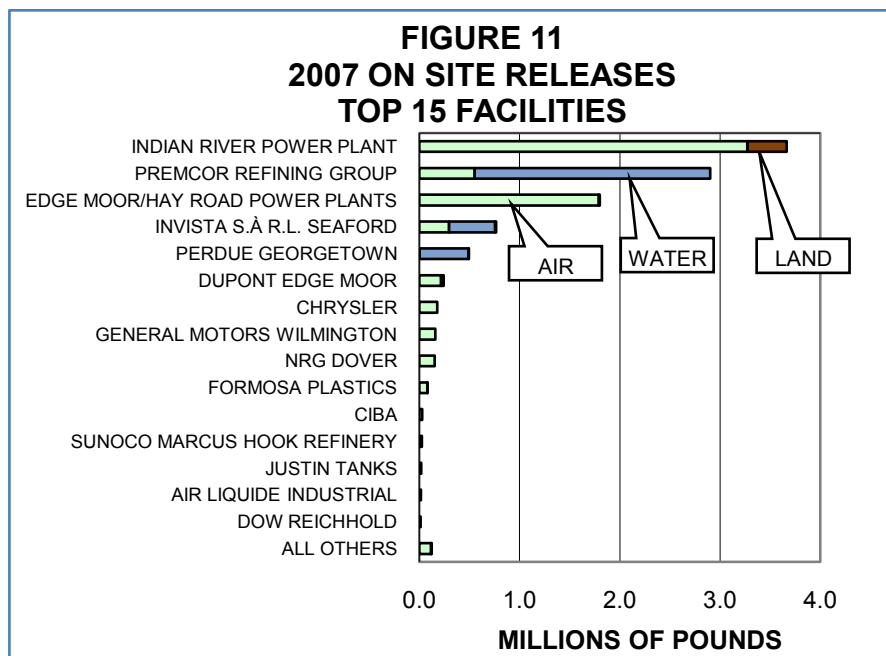


Table 6 shows the 2007 ranking of the top 15 facilities along with their 2006 ranking and the reported amounts of on-site releases for both years. Releases to the environment because of remedial actions, accidents, or one-time catastrophic events are included in these values. The percent change in total on-site releases for each of the top 15 facilities from 2006 to 2007 is

TABLE 6
TOP 15 FACILITIES 2006 AND 2007 RANKING BY ON-SITE RELEASE
(in pounds)

2006 RANK	2007 RANK	FACILITY	2007			2007 ON-SITE RELEASE	2006 ON-SITE RELEASE	2006 TO 2007 CHANGE IN RELEASES	
			TOTAL AIR	TOTAL WATER	TOTAL LAND				
1	1	INDIAN RIVER POWER PLANT	3,271,238	4,715	388,202	3,664,155	3,722,465	-58,310	-2%
2	2	PREMCOR REFINING GROUP	551,985	2,350,514	0	2,902,499	3,315,541	-413,043	-12%
3	3	EDGE MOOR/HAY ROAD POWER PLANTS	1,792,016	8,226	0	1,800,241	1,591,913	208,328	13%
5	4	INVISTA S.À R.L. SEAFORD	295,011	460,267	8,816	764,094	685,691	78,402	11%
4	5	PERDUE GEORGETOWN	2,500	487,400	16	489,916	707,590	-217,674	-31%
6	6	DUPONT EDGE MOOR	217,854	16,039	8,213	242,106	304,561	-62,454	-20.5%
7	7	CHRYSLER	178,136	0	0	178,136	177,320	816	0%
8	8	GENERAL MOTORS WILMINGTON	160,023	0	0	160,023	133,218	26,805	20%
9	9	NRG DOVER	153,012	0	0	153,012	109,013	43,999	40%
10	10	FORMOSA PLASTICS	79,629	3	0	79,632	102,478	-22,846	-22%
13	11	CIBA	29,119	0	0	29,119	29,856	-737	-2.5%
11	12	SUNOCO MARCUS HOOK REFINERY	26,156	0	0	26,156	85,737	-59,581	-69%
16	13	JUSTIN TANKS	18,400	0	0	18,400	12,489	5,911	47%
15	14	AIR LIQUIDE INDUSTRIAL	15,731	0	0	15,731	12,572	3,159	25%
12	15	DOW REICHHOLD	13,355	0	0	13,355	33,368	-20,013	-60%
		ALL OTHERS	116,083	511	941	117,535	114,880	2,655	2.3%
TOP 15			6,804,163	3,327,164	405,247	10,536,574	11,023,812	-487,238	-4.4%
STATE TOTALS, ALL FACILITIES			6,920,246	3,327,675	406,188	10,654,109	11,145,467	-491,358	-4.4%

Source: 2006 and 2007 DNREC TRI Databases, November 2008

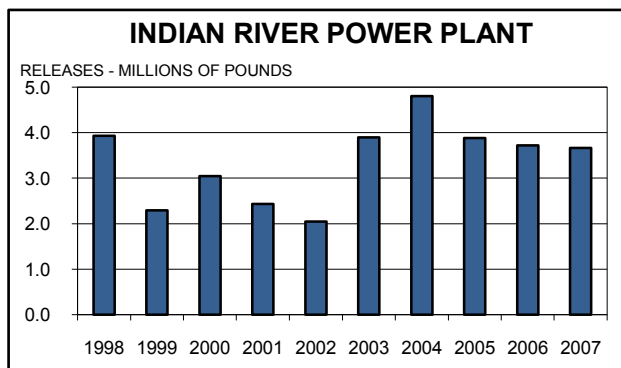
also shown, and some of these changes are significant. Changes at the facility, such as the way releases are estimated, how waste is managed, changes in raw materials or processing methods, or installation of new or improved production equipment possibly used to limit or eliminate releases of all or specific chemicals, may affect reported releases. Changes in production amounts may or may not affect releases from a facility. Details for some of these changes are provided on the following pages. Interested individuals are also encouraged to contact facilities and inquire as to the reasons why changes occurred.

The next several pages present a brief description of each of the top 15 facilities to provide an understanding of the use and importance of some of the TRI chemicals and basic operations at these facilities. As in Table 6, this rank for the 2007 reporting year is based on total reported on-site releases. The facility description explains the general types of products manufactured at the facility and how their TRI chemicals relate to the products and the overall plant operation. The graph included with the facility description shows the trend of the facility total on-site releases since 1998, the date of the last major TRI reporting revision. The graph for each facility includes all chemicals, including the newly reportable chemicals, which have been reported by the facility. Comparisons must be made carefully as **the scales on each of the facility graphs are different**. Appendix C provides a complete list of 2007 on-site release data grouped by facility and chemical.

The DNREC TRI program visits select facilities statewide during the year to get a better understanding of operations at the facilities, discuss TRI issues such as data quality that may have developed in the course of reporting, and to introduce new facilities and/or facility coordinators to the TRI program and its reporting requirements. Eight visits were conducted during the 2007 reporting year.

Although the TRI program itself has no limits for emissions, other DNREC and Federal programs do issue permits and limit emissions from operating facilities.

Rank #1 - NRG Indian River Power Plant - This 784 megawatt facility, located near Millsboro, produces electricity, primarily from the combustion of coal. Oil- and coal-fired power plants were required to report under TRI for the first time for 1998. For the fourth year in a row, Indian River has reduced its TRI emissions.



The Indian River Plant reported on 18 TRI chemicals for 2007. Ten of these were metal compounds, three were non-metallic PBT's, three were acid gases and the remaining two were ammonia and naphthalene. All the compounds except ammonia are formed during the combustion process as a result of impurities within the coal and oil. Ammonia is a product of the emissions reduction process.

Beginning in 2003, actual stack sample data (as compared to EPA emission factor methods) were used to calculate hydrochloric acid gas releases. These methods were applied to the

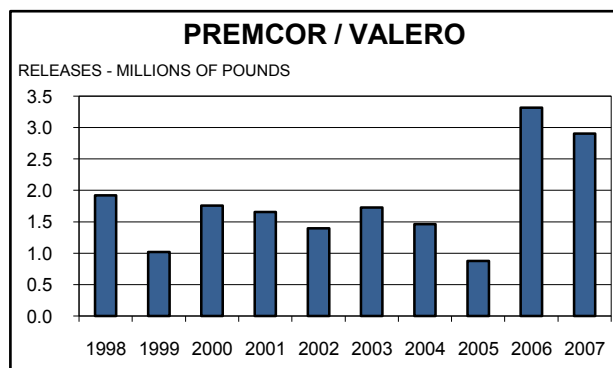
entire year, and this resulted in significantly higher release amounts for hydrochloric acid gas from 2003 up to 2005. In 2005, coal analysis and emission factors were used to calculate the hydrochloric acid gas. This gave a more representative total release for the year because it represents all the data for the year, not just the data collected during a single stack test run on regular coal. Acid gases, such as hydrochloric acid, sulfuric acid, and hydrofluoric acid, accounted for 88% of the facility's on-site releases in 2007.

Coal analysis data, emissions data, and emissions factors are used as a basis for calculating releases. Coal consumption decreased 16% in 2006 and increased 2.1% in 2007 based on coal burn records. In 2005, the on-site releases decreased 19% due to the Powder River Basin (PRB) coal and other lower sulfur coals the Station was test burning. PRB coal is lower in sulfur and chlorine, which produces less sulfuric and hydrochloric acid gases. Although the facility did increase coal consumption by more than 2% in 2007 and the net acid gases increased, Indian River burned lower sulfur bituminous coal in 2007, which, along with increased off-site transfers of ash, contributed to an overall lower TRI on-site release amount of 1.6%. Additional amounts of some metallic compounds, particularly barium compounds, are now transferred off-site for disposal, and this has reduced the amount of the facility on-site release to land by about 353,000 pounds.

With the increased off-site transfer of ash-containing metallic compounds in 2007, on-site mercury releases decreased by 34 pounds (17%) for 2007. Mercury total on-site releases were down from 197 pounds in 2006 to 163 pounds in 2007. Total mercury on-site releases and off-site disposal was up 19 pounds (10%) for 2007. Starting in 2004, coal analysis data and emissions data were used to calculate mercury and other metal compound releases. Metal compounds, formed as a result of impurities in the coal, are largely captured (96%) in the fly ash and bottom ash and sent to an on-site landfill or off-site beneficial use applications. The metallic compounds accounted for 11% of the facility on-site releases in 2007. Ammonia is released in the power production process solely from the use of urea, a pollution control agent used in Selective Non-Catalytic Reduction technology for reducing nitrogen oxides (NOx) by limiting the formation of oxides of nitrogen in the atmosphere. Ammonia release decreased 52% in 2007, the result of system optimization and the largest unit being in outage during the Ozone Season. Naphthalene is in the oil combusted at the facility.

Rank #2 - Premcor/Valero - The Valero Delaware City Refinery, owned and operated by The Premcor Refining Group Inc. (Premcor) refines crude oil into automobile gasoline, home heating oil, and a variety of other petroleum products. Premcor purchased the facility from Motiva Enterprises, L.L.C. on May 1, 2004, and subsequently became a subsidiary of Valero Energy Corporation.

Premcor reported on 43 TRI chemicals for 2007. The total facility-reported on-site releases decreased by 413,043 pounds in 2007, primarily the result of a 423,855-pound decrease in reported releases to water for nitrate compounds. The decrease in nitrate compounds reflects the use of new analytical data. Reported releases of propylene from the Frozen Earth Storage unit (see Cover Picture) increased by



approximately 131,000 pounds. This increase is based on new test methodology for quantifying fugitive emissions. DNREC issued a Conciliation Order on September 26, 2008 requiring Premcor to take corrective action at the Frozen Earth Storage unit to cease emissions related to the operation of this unit. Alternate storage must be provided by May 1, 2010 and the unit must be closed by December 15, 2010.

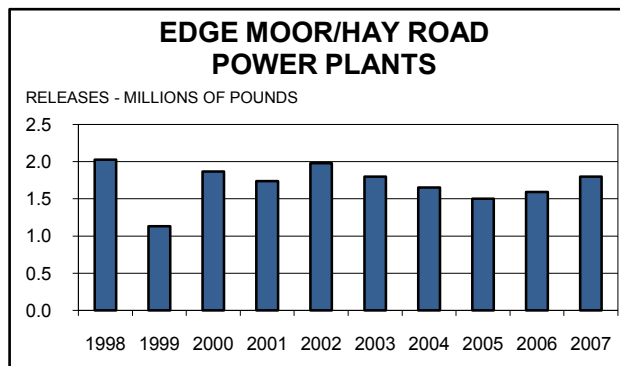
Releases of cresol and phenol to water decreased by 56,351 and 45,616 pounds, respectively, due to use of new analytical data. Releases of n-hexane to air decreased by 43,288 pounds due to an improved calculation methodology. Sulfuric acid releases to air increased by 47,465 pounds in 2007, primarily due to use of new stack test data for the power plant boilers and combustion turbines. On a historic basis, sulfuric acid releases have declined 22% since 2003, due primarily to the addition of wet gas scrubbers (WGS) at the Fluid Cat Cracker and Fluid Coker units. Release of hydrochloric acid has decreased by over 99% since 2003, the result of installing a hydrochloric acid wet gas scrubber (WGS) on the Continuous Catalytic Reformer Unit. Releases of MTBE continue to decline due to the phase-out of MTBE as an additive in gasoline. MTBE fell below the TRI reporting threshold in 2007 and was not reported.

The above changes, along with other smaller increases and decreases, resulted in a net decrease of 413,045 pounds (12%) in reported on-site releases for the facility in 2007 compared to 2006.

Total on-site waste management amounts increased by 7.8 million pounds in 2007. The majority of the increase is due to new feed streams to the Sulfur Recovery Unit (SRU) from the Fluid Catalytic Cracking Unit and Coker wet gas scrubbers and from the Sour Water Stripper. The increase in SRU processing rates resulted in increased treatment of carbon disulfide and carbonyl sulfide in the SRU and increased energy recovery of ammonia at the SRU.

Off-site transfers increased by over 200,000 pounds in 2007. The increase is primarily due to new analytical data for nickel and vanadium compounds in gasifier slag sent off-site for recycle or disposal.

Rank #3 - Edge Moor/Hay Road Power Plants - Oil- and coal-fired power plants were required to report under TRI for the first time for 1998. The Edge Moor/Hay Road facilities are located along the Delaware River, a mile north of the Port of Wilmington, and produce electricity from the combustion of coal, oil, and natural gas.



The Edge Moor/Hay Road power plants reported on 18 TRI chemicals for 2007. These facilities reported three acid gases, nine metal compounds, four non-metallic PBT's, nitrate compounds, and ammonia.

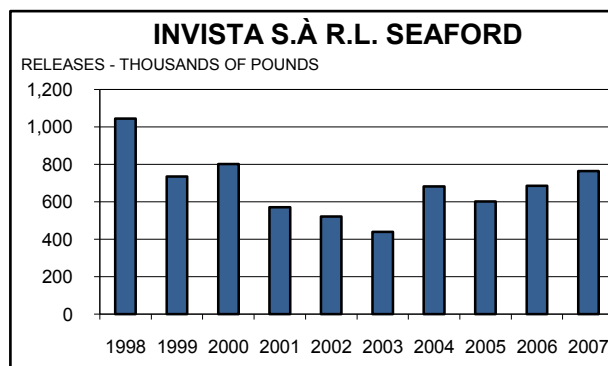
Electricity production at the facilities increased 28.6% in 2007. Also, because of a change in the types of fuel used (an increase in #6 oil and coal, and a decrease in #2 oil), overall on-site releases increased

13% compared to 2006 and are now at 89% of the facility's 1998 level. Acid gas emissions -- hydrochloric acid, hydrogen fluoride and sulfuric acid -- accounted for 97.5% of on-site

releases. The increase in on-site releases for hydrochloric, hydrogen fluoride, and sulfuric acid gases were the result of an increase in coal and oil use due to increased electricity generation. All listed compounds except ammonia are formed during the combustion process because of impurities within the fuel. Ammonia is released from the Edge Moor facility solely from the use of urea, a pollution control agent used for limiting the formation of oxides of nitrogen to the atmosphere. Ammonia is also used at the Hay Road facility for pollution control. About 94% of the metal compounds was largely captured in the fly ash and bottom ash which was disposed of in an off-site landfill. A portion of the ash is re-used in an encapsulated form by various vendors. The remaining 6% of metals not captured in ash was released to on-site air and water, and accounted for 1.3% of the facility total on-site releases.

Rank #4 - INVISTA S.À R.L. Seaford - This facility was the first plant worldwide to produce spun nylon fibers, beginning operations in 1939. INVISTA's Seaford site is located on approximately 648 acres adjacent to the Seaford Golf and Country Club and the Nanticoke River.

Principal products now produced at INVISTA's Seaford site include Bulk Continuous Filament (BCF) nylon yarn for carpets (marketed under globally-known brands such as STAINMASTER® carpet and ANTRON® carpet fiber), staple fiber for U.S. military combat uniforms and chemical-resistant clothing for the military, staple fiber for tennis balls, pool table coverings, and "gaming" felts, and staple fiber for conveyor belts used in paper manufacturing.

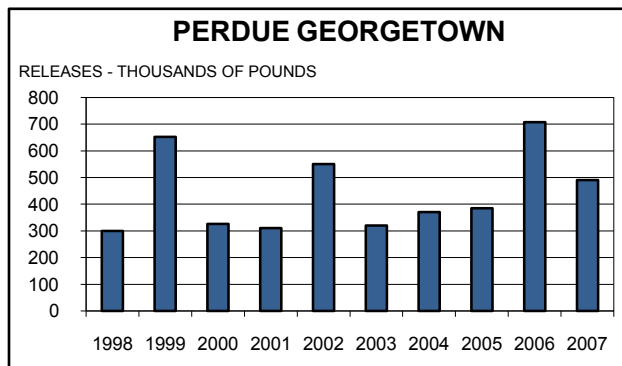


The INVISTA Seaford facility reported on 14 TRI chemicals for 2007. Total reported on-site releases increased 78,402 pounds (10%) from reporting year 2006. Because of new emission factors derived from emissions testing in 2007, the reported emissions of hydrochloric acid aerosols in 2007 are 10% higher (20,000 lbs) than reported emissions in 2006, which were based on prior emissions testing. Of the 14 TRI chemicals reported, 98% of the on-site releases were comprised of three chemicals: hydrochloric and sulfuric acid aerosols (released to air) and nitrate compounds (released to water). Combustion of coal in the INVISTA power facility produces hydrochloric and sulfuric acid aerosols, which are released to air from the power plant stack. The coal contains small amounts of chlorine and sulfur-containing compounds that convert to acid gases in the combustion process. The facility's overall fuel usage in 2007 remained unchanged from the 2006 reporting year. However, sulfuric acid aerosol releases decreased by 20% (19,000 lbs), based on acquisition of lower sulfur content coal as compared with the 2006 reporting year.

Nitrate compounds are produced during biological treatment of nylon process wastewater. Nitrate compounds releases increased by approximately 21% (80,000 lbs), due to an increase in the volume of water being treated by and discharged from the site's wastewater treatment facility. The increased discharge was the result of an increase in the volume of water diverted to the facility's treatment facility due to stormwater outfall diversions and process changes.

Rank #5 - Perdue Farms Georgetown - Perdue Farms is a producer of poultry products. The Georgetown facility processes chickens for sale to the retail market. Perdue Georgetown reported on four TRI chemicals for 2007. Over 99% of the on-site releases were nitrate compounds.

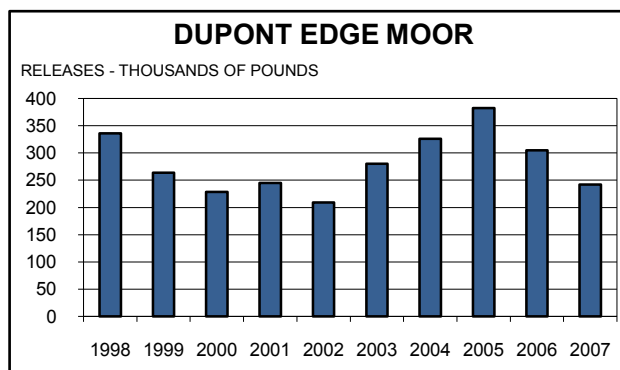
The Perdue wastewater treatment plant digests ammonia and production waste from the poultry processing plant's wastewater stream and converts some of these wastes to nitrate compounds.



These reported on-site release amounts have varied in recent years because of changes in plant operation and in the way the amount of nitrate compounds releases are estimated. In 2003, nitrate compound on-site releases decreased by 42%, the result of additional water recycle projects. In 2004 and 2005, production increases accounted for the increases. In 2006, the reported amount increased as a result of optimization testing for the new NPDES permit. In 2007, the nitrate compound

amount reported at the plant significantly decreased as a result of reduced nitrate concentrations, reduced wastewater amounts, and application of a more accurate factor for nitrate releases. The reported nitrate compound amount for 2007 declined by 27% compared to 2006. Total on-site releases of 489,916 pounds reported for 2007 decreased by 217,674 pounds compared to the total of 707,590 pounds for 2006.

Rank #6 - DuPont Edge Moor - The Edge Moor Plant is one of three domestic DuPont facilities that manufactures titanium dioxide, a white pigment that is used in the paint and paper industries. The facility also produces titanium tetrachloride and ferric chloride. The plant is located along the Delaware River a few miles north of the Port of Wilmington.



DuPont Edge Moor reported on 22 TRI chemicals for 2007. On-site releases declined by 21% compared to 2006. While production was slightly lower in 2007, on-site release of carbonyl sulfide decreased by 15%. This decrease can be attributed to an optimized start-up/shut-down schedule. Carbonyl sulfide is a gas by-product of the titanium dioxide production process, and is produced from the use of sulfur-bearing coke in the process of manufacturing the titanium dioxide from titanium-rich ores. Also, the

reported on-site release to water for manganese compounds decreased by 72% from 2006 levels, which was the result of ore blend changes, natural process variability, and on-site process changes aimed at redirecting these compounds to off-site transfers. As a result, the off-site transfer of manganese compounds increased by 23%.

Of the 22 reported TRI chemicals, carbonyl sulfide accounted for 86% of their total reported on-site release amounts, and manganese compounds accounted for 4.3%.

Dioxins and dioxin-like compounds are also created as a result of ore processing. Over 99.97% (48.6571 pounds out of 48.6684 pounds generated) of the dioxins generated are contained within the solid material sent to an out-of-state landfill facility.

In 2002, DuPont announced a goal to reduce the generation rate of dioxin and dioxin-like compounds by 90% by year-end 2007, compared with 2001 levels. DuPont Edge Moor

The term “dioxins” is used in this report to indicate a group of 17 dioxins and dioxin-like compounds (including furans) reportable to TRI, out of a family of several hundred dioxins and dioxin-like compounds. Among the “dioxins” included in TRI reports is the very toxic 2,3,7,8-TCDD dioxin, which is the cogener generally of most concern, and most commonly covered by the popular news media. Toxicity levels of these 17 compounds vary greatly, and some compounds in this group have toxicity levels **1,000 times less** than the 2,3,7,8-TCDD dioxin. The great majority (97%) of the “dioxins” reported by DuPont Edge Moor is a furan of this lower toxicity level. All TRI “dioxins” are reportable in grams without regard to toxicity level. However, starting in reports for 2008, dioxins will be reported on a separate form, and the results will be available both on a weight and Toxic Equivalent Quantity (TEQ) basis. See page 5 for more detail.

completed a major capital construction project in 2006 to provide these reductions, with the expectation that DuPont would meet its 90 percent reduction goal for “dioxins and dioxin-like compounds” in the coming years. Through 2007, DuPont reduced by more than 99 percent the on-site release of dioxin and dioxin-like compounds from 2001 levels, and reduced off-site transfer for disposal from the Edge Moor plant by 71% by implementing the capital project and by making process modifications.

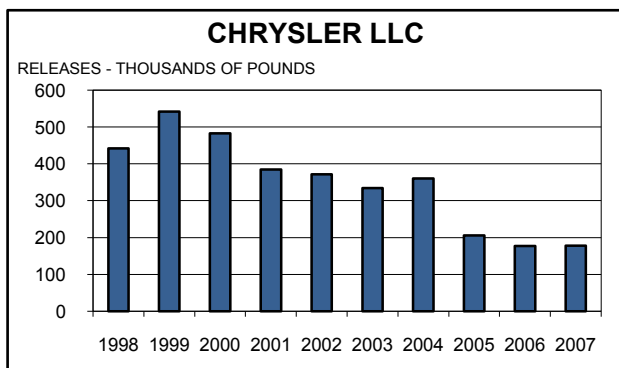
Although production of dioxins has been reduced since 2001, on-site release of dioxins did increase in 2007 compared to 2006. Reported on-site release of dioxins increased by 0.0097 pounds (4.39 grams). This increase was due to storm water sample analysis, which accounted for 95% of the total water discharges. The storm water sample analysis was required as a part of the site’s NPDES permit renewal. Storm water was not sampled in 2006 and hence this number was not accounted for in 2006. The majority of “dioxins in storm water” reported by DuPont Edge Moor is a furan of lower toxicity level.

DuPont Edge Moor also reported Creosote emissions in 2007. Creosote emissions were

reported because the site exceeded the otherwise use threshold when approximately 1000 railroad ties that were treated with creosote were replaced in 2007.

Rank #7 - Chrysler LLC Newark Assembly Plant - Chrysler assembles the Dodge Durango and Chrysler Aspen SUV for distribution to dealers. Chrysler reported on 17 TRI chemicals for 2007. All on-site releases were to the air. Many of these are solvents used in paints or for parts cleaning, while others are materials that are incorporated into the cars themselves, such as ethylene glycol (antifreeze) and n-hexane (gasoline).

The vehicle body coating process makes use of 1,2,4-trimethylbenzene, certain glycol ethers, methyl isobutyl ketone, n-butyl alcohol, and xylene. Some of these materials are also used



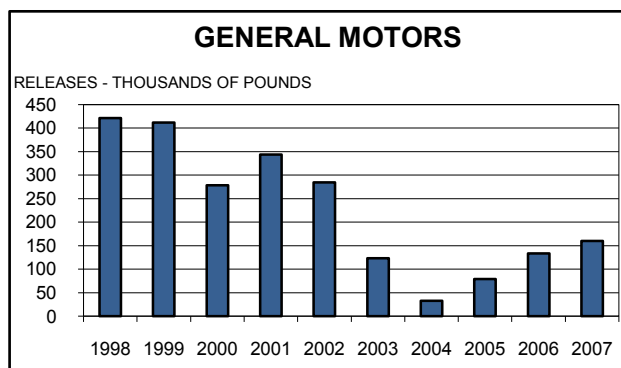
elsewhere in the facility. In total, these chemicals accounted for approximately 87% of the Chrysler on-site releases in 2007.

Chrysler accounted for about 83% of certain glycol ethers and 15% of all xylene releases in the state in 2007.

This facility had a production decrease of 12% in 2007, but the on-site releases remained relatively unchanged. Some

materials are incorporated into the vehicles themselves and increase and decrease with production; however, other material usages, even with continuing pollution prevention activities, increase because of the additional solvent usage required in the paint process for purging lines due to more system shutdowns and startups due to production interruptions.

Rank #8 - General Motors Wilmington Assembly Plant - General Motors assembles Pontiac Solstice and Saturn Sky automobiles for distribution to dealers; the Opel GT for export to Europe, and the Daewoo G2X for export to Korea.



GM reported on 14 TRI chemicals for 2007. Many of these are solvents (certain glycol ethers, n-butyl alcohol, xylene) used in paints or for parts cleaning, while others are materials that are incorporated into the cars themselves, such as ethylene glycol (antifreeze). Xylene, certain glycol ethers, and 1,2,4-trimethylbenzene are paint solvents used in both the base and top coats and accounted for 85% of GM on-site releases in 2007.

General Motors accounted for about 5% of certain glycol ethers, 70% of 1,2,4-trimethylbenzene, and 76% of all xylene releases in the state in 2007.

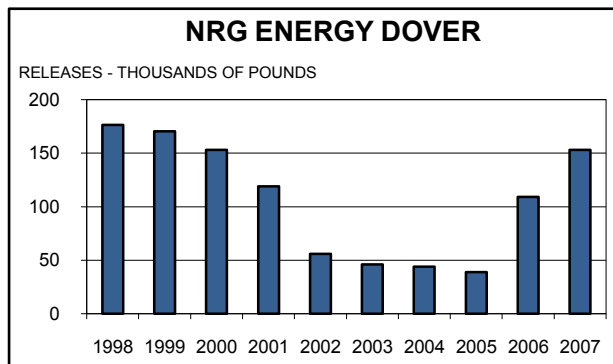
Production for 2007 was 125% of the 2006 level, and on-site releases were 120% of the 2006 amounts. During 2004-5, the plant underwent a significant model change-over and production was curtailed, but some TRI chemicals remained in use for non-production cleaning and other changeover activities. In 2006, production re-started and releases of TRI chemicals increased in proportion to production, while non-production releases continued at a lower level.

Rank #9 - NRG Dover Plant - Oil- and coal-fired power plants were required to report under TRI for the first time for 1998. This facility, located on the West side of Dover, produces electricity primarily from the combustion of coal.

The NRG Dover Plant reported on four TRI chemicals for 2007. Two of these were acid gases - hydrochloric acid and sulfuric acid - formed during the combustion process. Acid gas releases accounted for over 99.9% of the facility on-site releases. Small amounts of metal compounds are also formed during combustion because of metallic impurities in the coal and

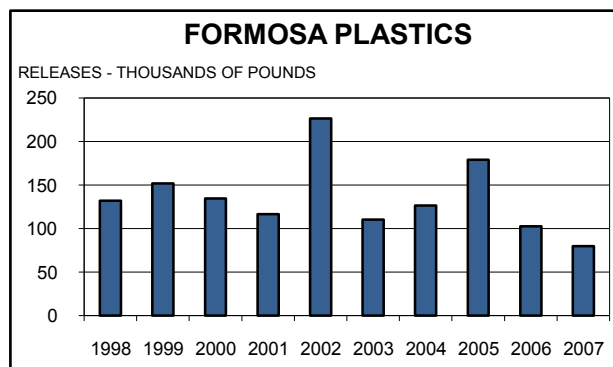
are largely (97%) captured in the fly ash and bottom ash. The ash is sent to an off-site facility for use in cement, and also to a landfill for disposal.

The decrease in the 2002 reported releases was the result of using actual coal mine data as a basis for estimating releases of hydrochloric acid aerosols. This new basis reduced the reported release of hydrochloric acid by 65% (63,000 pounds) in 2002, and the hydrochloric acid release amount was nearly the same for 2003. The sulfuric acid release in 2003, however, was lower by 47%, the result of applying a coal mine coal cleaning factor that was included for the first time that year. For 2005, production increased by 4% while reported releases decreased by 12%. This reduced release amount was because of the lower sulfur content in coal purchased in 2005, which resulted in a 38% reduction in the reported sulfuric acid release. Although electricity production declined 24% in 2006, estimated release of hydrochloric acid increased to 100,000 pounds, a 213% increase over 2005. This increase was because of a change in coal suppliers in 2006. Analyses showed the new coal to have a higher chlorine content than previously fired coals. In 2007, electricity production increased 39%, and on-site releases increased in proportion to the increase in electricity production.



Rank #10 - Formosa Plastics - Formosa Plastics, located in the Delaware City Industrial complex, produces polyvinyl chloride (PVC) resin for bulk sale to other industries that produce PVC based products, such as containers, flooring, carpet backing, upholstery, toys, and gloves.

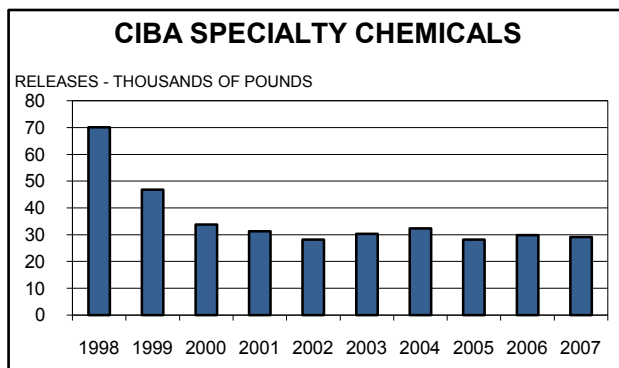
Formosa reported 3 TRI chemicals for 2007. Vinyl acetate accounted for 35% of Formosa's on-site releases for 2007. Vinyl acetate is also a raw material used in certain products and is released through the drying process. Vinyl chloride monomer (VCM) accounted for 47% of the facility on-site releases. VCM is the primary ingredient for producing PVC and is released as residual unreacted monomer during the drying process of the PVC resin.



Permits regulate the concentration of the residual monomer in the PVC before drying. Ammonia is also used in several of Formosa's products and is released during the PVC drying process. Ammonia accounted for 18% of Formosa's on-site releases in 2007.

Formosa started using a material balance basis on which to estimate vinyl acetate releases in 2002, so direct comparison of 2002 and later years with prior years is not possible.

Rank #11 - Ciba Specialty Chemicals - Ciba Specialty Chemicals is located in Newport. Ciba manufactures pigments for the paints, plastic, and printing industries. They reported on eight TRI chemicals for 2007. All on-site releases were to air.

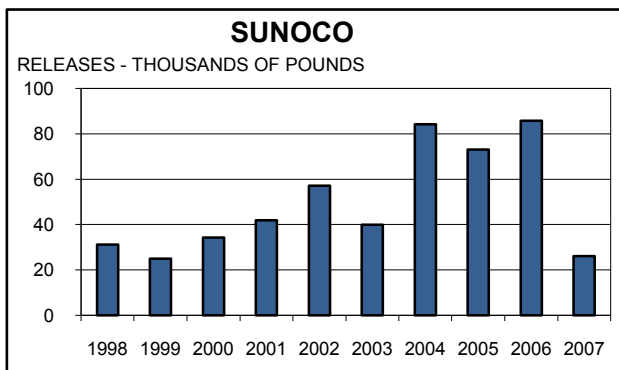


Methanol was the predominant chemical released on-site in 2007 (93% of total on-site releases). Methanol is used as a reactant and a solvent in the pigment manufacturing process. A significant portion of methanol used at the facility is recycled.

Total pigment production was up slightly in 2007, but overall on-site releases decreased 2.5% because of a different pigment assortment manufactured. Ciba has expanded and modernized their facility since

1998. Although facility capacity has more than doubled since 1998, they have achieved a 58% reduction in on-site releases during this time. They have also reduced transfers of methanol to off-site water treatment by 78% since 1998, including a 124,000-pound reduction in 2007.

Rank #12 - Sunoco Refining and Marketing – Although Sunoco is located in Marcus Hook, PA, part of the facility extends into the North Claymont area of Delaware. The Marcus Hook facility can process 180,000 barrels a day of crude oil into fuels – including gasoline, aviation fuel, heating oil, residual fuel, propane and butane, and petrochemicals. The major petrochemicals are benzene, toluene, xylene, cyclohexane, propylene, ethylene, and ethylene oxide; these are sold to chemical companies, which use them to make a variety of other products.



The portion of the Sunoco facility in Delaware reported four TRI chemicals in 2007. Ethylene and ethylene oxide accounted for 78% of the total on-site

Delaware releases for 2007, and smaller amounts of benzene and xylene were also reported as released to air from tanks in Delaware.

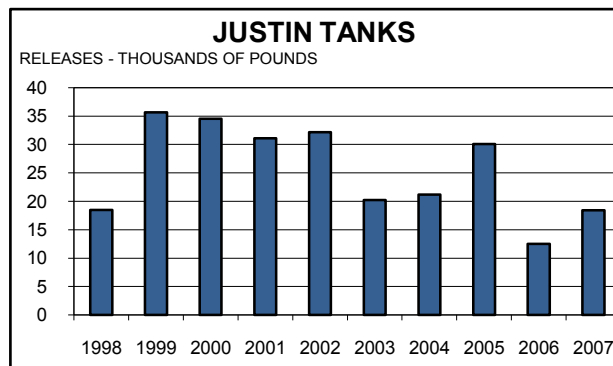
For 2007, on-site releases decreased by 59,581 pounds (69%) and included reductions in all four chemicals reported. Ethylene decreased the most at 56,115 pounds (73%), followed by ethylene oxide at 2,680 pounds (67%). The decrease in ethylene and ethylene oxide releases were a result of new emissions data from recent stack tests.

Rank #13 - Justin Tanks – Justin Tanks, located in Georgetown, manufactures a wide variety of Fiberglass Reinforced Plastic (FRP) tanks for use in the chemical, agricultural, and food industries.

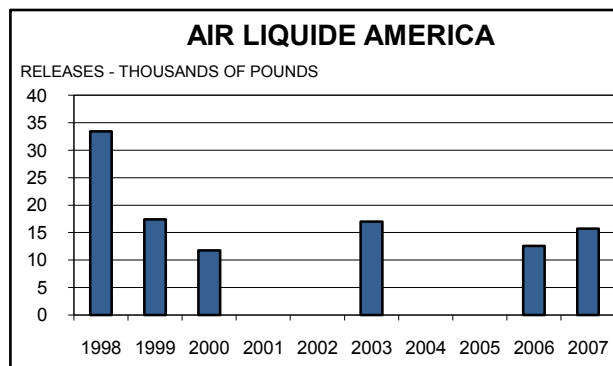
Justin reported on one TRI chemical, styrene, for 2007. Styrene is used as a monomer in the polymerization of fiberglass resin. The majority of the styrene is released to the air during the

application process of fiberglass to the tank. During polymerization and curing, small amounts of styrene are released, and the amount of styrene release diminishes to zero at full cure. No release occurs after the tank polymerization and curing process is complete.

On-site releases increased 5,900 pounds (47%) compared to 2006, the result of a 70% increase in production. Use of lower styrene monomer resins and the completion of equipment improvements in 2006 to reduce styrene releases during the application process helped to keep the increase in reported styrene releases below the increase in production.



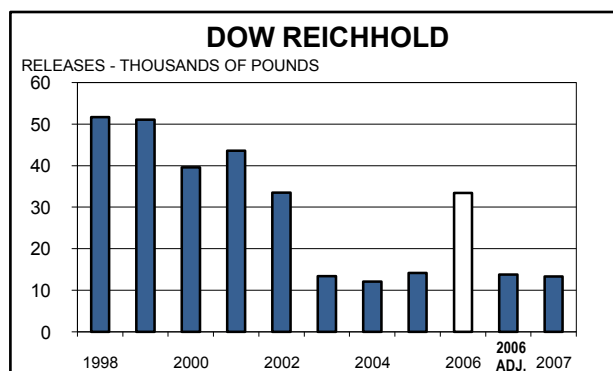
Rank #14 - Rank #14 - Air Liquide America Air Liquide is located in Delaware City and produces liquified carbon dioxide from a gas stream received from a nearby facility. The carbon dioxide is used by many industrial and food processing facilities in the region. Air Liquide reported on one chemical, ammonia, in 2007. Ammonia is used in the refrigeration systems that condense the carbon dioxide. The gaps in data for 2001-2002 and 2004-2005 are because this facility did not meet the minimum threshold for reporting to the TRI program in those years. The reported increase for 2007 was because of a condenser leak. The condenser was replaced in January 2008. Since 1998, on-site releases of ammonia have decreased by 53%.



Rank #15 - Rank #15 - Dow Reichhold – Dow Reichhold is located two miles south of Cheswold. Dow Reichhold produces emulsion polymers, sometimes referred to as latex. These products are sold in bulk liquid form and are used in the manufacture of synthetic fuels, nitrile rubber gloves, textiles, and other specialty products.

Dow Reichhold reported on 10 TRI chemicals in 2007. Most of these are raw materials used to form emulsion polymers.

In 2006, a railcar containing styrene at the facility spontaneously polymerized, releasing styrene to the air, resulting in the large increase in 2006. The railcar was not attached to any plant processes and no fire or explosion occurred at the facility. There were no serious injuries at the facility or in the nearby community. If on-site releases are adjusted for this non-production related release as shown on the above graph, releases in 2006 would have been 3% lower than the 2005

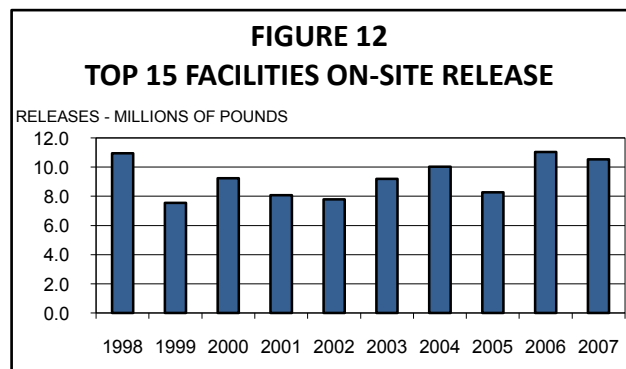


amount. In 2007, reported on-site releases were 412 pounds lower (3% lower) than the adjusted amount for 2006, while production increased by 6%. The facility reported little change in releases for 2007 compared to the 2006 releases adjusted for the styrene railcar incident.

Release of 1,3 butadiene accounted for 35% of the total on-site production releases in 2007. Between 1998 and 2007, releases of 1,3 butadiene have been reduced by 84%. Release of styrene accounted for 11% of the total on-site production releases in 2007. Between 1998 and 2007, production related styrene releases have been reduced by 75%. Pollution control equipment processed the residual monomers and achieved 98.0-99.9% removal efficiency before releasing its exhaust to the air. Although production increased slightly in 2007, it has declined by 45% since 1998. During the same time frame, Dow Reichhold's production-related on-site releases have decreased by 74%. The reductions are partially the result of declining production, but also the result of implementing a more rigorous Leak Detection and Repair (LDAR) program that exceeds current regulations, and improving the performance of the emission control equipment. Some of the reduction is also attributable to improvements in the conversion of monomer in the production formulas.

In August 2008, Dow Reichhold announced that this facility would close by the end of the year. DNREC is working closely with the facility to ensure that reporting and cleanup obligations are met and that there will be no adverse environmental impact as a result of the closing.

Combined Top 15 Facilities Trend - Figure 12 shows the totals for reported on-site releases for the top 15 facilities during 1998-2007. The total on-site release trend for these 15 facilities is down 4.4% since 2006. These facilities represent almost 99% of the total on-site releases in



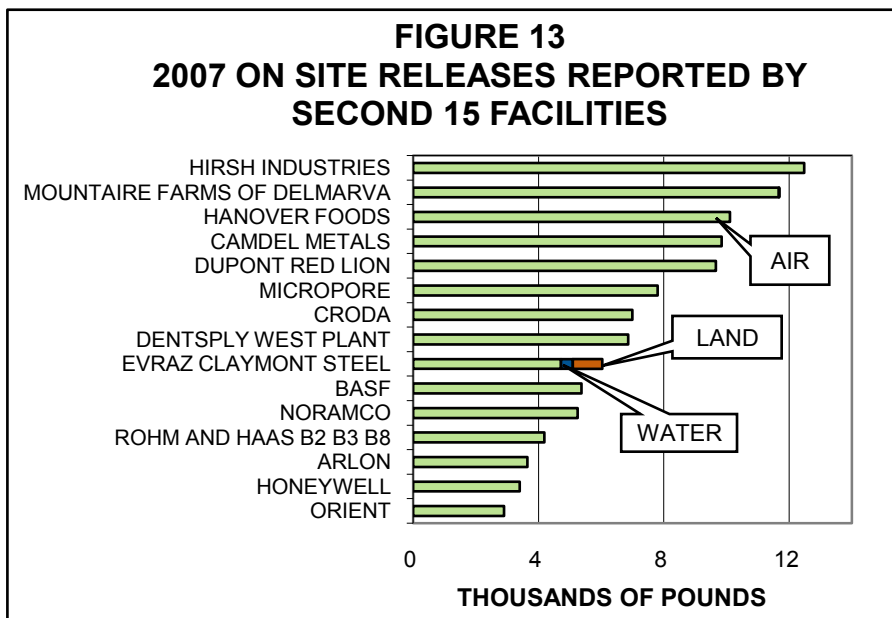
the State for 2007. Seven facilities had increases in 2007. The largest was the 208,000 pounds increase reported by the Edge Moor/Hay Road power plants (#3). Eight facilities had decreases, the largest being the 413,043-pound decrease reported by the Premcor Refinery (#2). All reportable chemicals are included without adjustment to the data shown on this graph and the ones above for the individual facilities.

Releases from the Second 15 Facilities

As with the first 15 facilities, a brief description of the second 15 facilities is presented on the next several pages. Again, the ranking is based on the total facility reported on-site release. Releases to air constitute about 98.75% of this group's total on-site release, while releases to water and land each contribute less than 1%. Figure 13 shows the amounts and relative portions released to air, water, and land by each of the second 15 facilities.

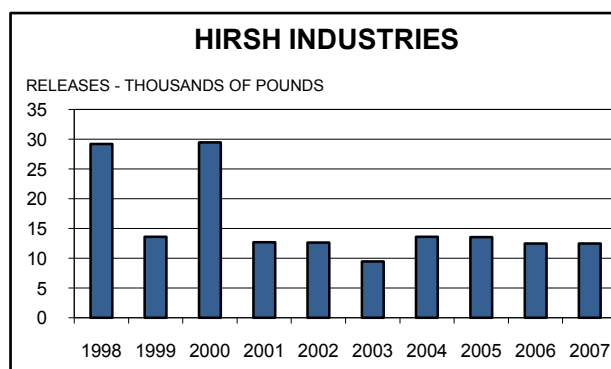
On-site releases increased by 6% for this group of facilities for 2007. Five of these facilities had reductions, the largest being Honeywell (#14 in 2006 to #29 in 2007). Ten facilities

had increases or were new for 2007. The facility with the largest increase was Mountaire Farms of Delmarva (#17), new for 2007. The trend of this group is shown in Figure 14 on page 36. Over time, some facilities may move up to the top 15 group or out of the top 30 entirely.



Rank #16 - Hirsh Industries – Hirsh Industries produces a line of consumer durables. These products include file cabinets, shelving units, and lateral filing systems. These items are used in home and office applications. Hirsh Industries is located in North Dover.

Hirsh reported one TRI chemical in 2007, certain glycol ethers. It is used as a component in the water based coatings for their painting process. The volume of production activities involving certain glycol ethers was unchanged in 2007, and on-site releases were also unchanged. Total on-site release is now at 43% of the 1998 amount. The earlier downward trend during 2000-2003 is partially the result of a decline in production, which has stabilized in recent years.

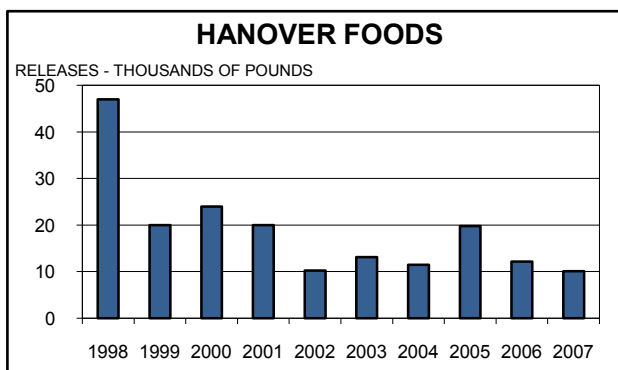


Recent initiatives were directed toward reduction of on-site releases include the introduction of several new and reformulated coatings with reduced Volatile Organic Compounds and Hazardous Air Pollutants content. This, along with a more effective painting process and Hirsh using more accurate methods of estimating releases, accounts for the decrease in 2005-2006.

Rank #17 - Mountaire Farms of Delmarva – This facility, located in Selbyville, produces retail, wholesale and export chicken products. Mountaire reported on three TRI chemicals for 2007. The predominant chemical reported is ammonia. Ammonia is used at this facility for refrigeration.

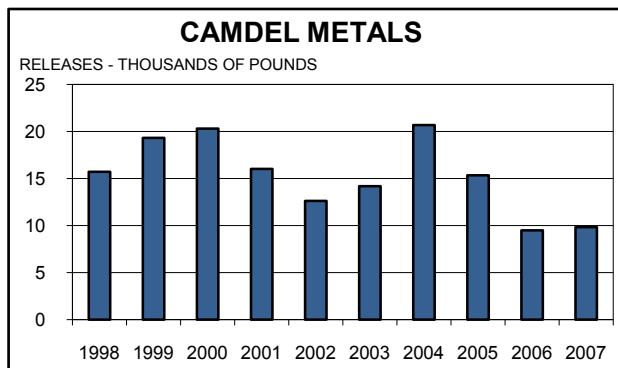
This facility has not reported to TRI since 2001, having crossed the reporting threshold for ammonia and two other chemicals in 2007. Since this is only the first year of TRI reporting for this facility since 2001, no trend is available.

Rank #18 - Hanover Foods - Hanover Foods Corporation produces a variety of fresh, frozen, and canned vegetables, soups, refrigerated and frozen entrees, and snack foods. Customers for these products include the retail, foodservice, military, club store, and industrial markets.



The Hanover Foods facility located in Clayton, freezes fresh vegetables including corn, peas, lima beans, spinach, and squash, as well as prepares, freezes, and packages entrees. Hanover reported ammonia releases for the past several years. This was primarily due to leaks and other losses in their refrigeration equipment. In 1999, with the assistance of DNREC's Emergency Planning and Response Branch, a program to reduce ammonia releases was begun, and Hanover's on-site releases have decreased by 78% since 1998. In recent years, the increase and decrease of ammonia releases reflect the level of production. In 2005, production increased 50% but the reported ammonia release increased 72%, the result of leaks and losses associated with the installation of additional equipment. In 2006-7, production declined 17% and releases fell along with production.

Rank #19 - Camdel Metals - Camdel Metals Corporation, located in Camden, DE, specializes in the production of seamless & welded stainless steel coiled and straight length tubing. These tubes have been produced for numerous petrochemical applications, process construction,



general control systems, instrumentation, medical, military, oil & gas, down hole and subsea umbilical applications. Camdel produces continuous seamless coils that can be in excess of 6,000 feet in length. The tubing ranges in size from 0.020 to 3/4 inch diameter.

Trichloroethylene (TCE) is the primary TRI chemical reported by Camdel Metals, and makes up 100% of the on-site release amount. It is used as a solvent to clean the tubing. Production increases related to TCE use in 2003 (15%) and 2004 (43%) accounted for most of the on-site release increases since 2002, and releases generally tracked production. Although production volume related to use of trichloroethylene fell 15% in 2006, trichloroethylene releases fell by 38%, the result of improved process control and waste

management. In 2007, production declined by 7%, but TCE releases increased by 4%, the result of a non-production release. This release occurred when a drum containing trichloroethylene was accidentally punctured. The spill was immediately isolated and cleaned up with no chemical remaining in the ground. Over 99.5% of the scrap metal generated at the facility is sent off site for recycling.

Rank #20 - DuPont Red Lion – This facility, located north of the Premcor Delaware City refinery, manufactures sulfuric acid derived from spent sulfuric acid and refinery gas received from the refinery. The spent sulfuric acid and refinery gas are received by pipeline, and the fresh acid is shipped from the facility via pipeline, tank trucks and tank cars. The facility has the capacity to manufacture 550 tons/day of sulfuric acid. The approximate volume of sulfuric acid manufactured by this facility in 2007, its second year of full operation, was 410 tons/day.

This facility is new, starting up and reporting on a partial year of production for the 2005 reporting year. On-site releases from this facility for 2007 were 9,658 pounds of sulfuric acid gas released to air, an increase of 19%, proportionate to the 21% increase in production for 2007. Since this is only the second year of full operation for this facility, no trend is yet available.

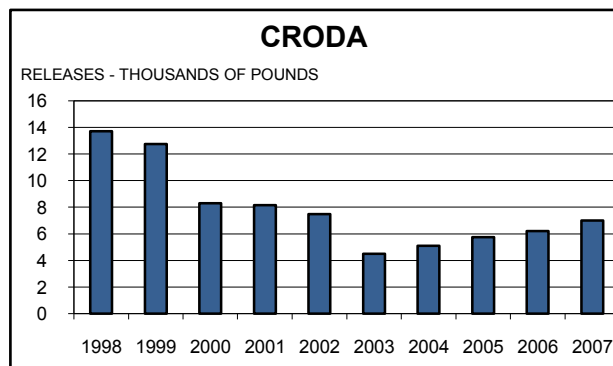
Rank #21 - Micropore – This facility, located in the Pencader Industrial Park in Newark, manufactures CO₂ absorbent materials. These materials are used in Scuba rebreathing and rescue applications where fresh air is limited or not available. Micropore uses n-hexane to remove processing oil from its products. The hexane and oil are distilled and reused in the process.

This facility is new to TRI, having recently expanded and crossed the reporting threshold for n-hexane in 2007. Since this is only the first year of TRI reporting for this facility, no trend is yet available.

Rank # 22 - CRODA - Formerly ICI Atlas Point, then Uniqema; these companies have occupied this site located in New Castle near the Delaware Memorial Bridge since 1971. Croda International Plc acquired Uniqema in September 2006. Founded in 1950 and headquartered in the United Kingdom, Croda is a manufacturer and supplier of natural-based specialty chemicals for the Personal Care, Pharmaceutical, Household, and Industrial markets.

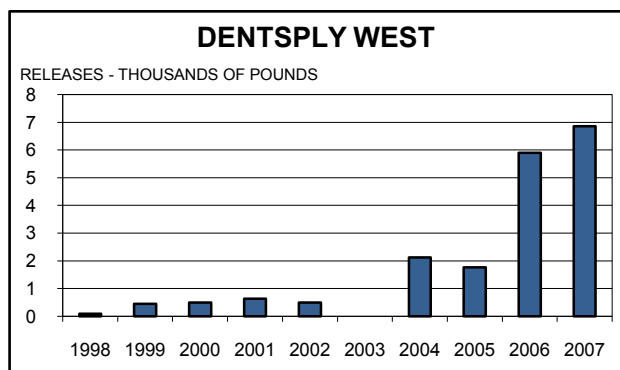
The Croda facility manufactures products, known as surfactants, that promote the mixing of oil and water based ingredients in many consumer products, such as baby shampoo, shaving cream, mouthwash, pharmaceuticals, and many other personal care and industrial products.

Croda reported on 12 chemicals for 2007. The majority (78%) of the on-site chemical releases were from ethylene oxide, methanol, and propylene oxide. All on-site releases for 2007 were to air. Croda TRI releases increased 13% in 2005, 8% in 2006, and 13% in 2007. Since 1998 overall site emissions have decreased 49%. The recent increases in 2005-2007 were the result of the addition of a MultiPurpose Plant to the facility in 2005 and a modification to the product portfolio in response to market conditions. In July 2005, Uniqema



brought on line the first phase of a 20 million lb/year expansion to manufacture amine-based chemicals. In 2006, the second phase of the expansion became operational.

Rank #23 - Dentsply West – Dentsply produces a line of consumable products for the dental industry. These products include dental adhesives, dental impression materials, and restoratives. These products are used in dental maintenance and restoration applications. Caulk's East Masten Circle facility (Dentsply West) and the West Clarke Avenue facility (Dentsply Main) are located in Milford.

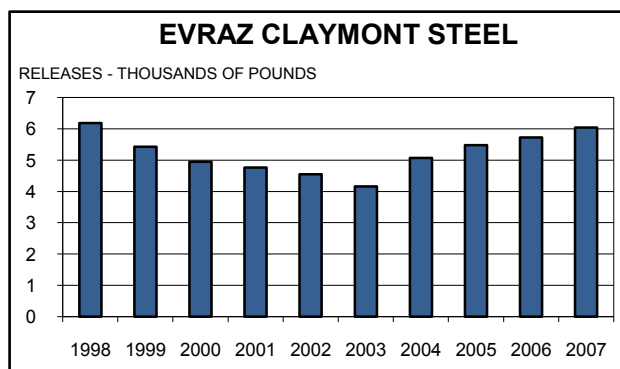


Dentsply West reported three TRI chemicals in 2007. The predominant chemical released on-site was toluene. It is used as a cleaning solvent in their process. On-site releases have increased significantly since 2004 because of increased production, addition of new equipment, and more accurate reporting methods. In 2006, the facility reported significant increases in on-site releases for toluene and methyl methacrylate (MMA). The facility reported on-site release of methanol in 2007 for the

first time since 2002, and total on-site releases for 2007 increased by 16% compared to 2006. Reported on-site releases of toluene and MMA were almost unchanged for 2007.

The Dentsply Main facility is one of two facilities in the state that report on elemental mercury. Virtually all of the mercury at Dentsply is used in their products or recycled, with no reported on-site mercury releases.

Rank #24 – Evraz Claymont Steel - Located on a 425 acre site in Claymont, Evraz Claymont Steel, formerly known as CitiSteel and Claymont Steel, manufactures carbon steel plate for heavy industrial applications. The facility purchases and recycles over 500,000 tons of scrap steel annually and melts it in an electric arc furnace making this facility the largest recycler in the State of Delaware. The melted steel is cast into large slabs which are rolled into plates of thicknesses from 1/4" to 5-1/2". The plates are sold throughout the entire United States.



Evraz Claymont Steel reported on-site releases of eight TRI chemicals including seven metallic compounds and dioxin compounds, for 2007. Most of the releases, 78%, were to air. Zinc compounds was the largest on-site release, at 51% of the total. For 2007, on-site releases increased 5.5%. The increase in the 2007 on-site amount total was due to an 8 percent increase in production compared to 2006.

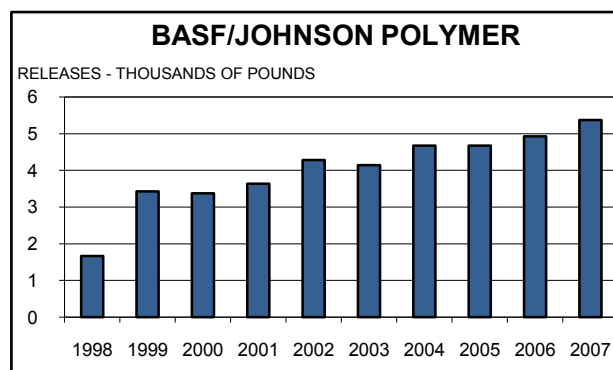
In early 2006, in an effort to more accurately measure emissions and releases of toxic chemicals, Evraz Claymont Steel conducted tests on exhaust air leaving their dust collector. The results of these tests showed that in 2005 most chemicals were higher than previously reported, although one was lower. Mercury compounds in particular, was higher than expected, increasing to 361 pounds, up from 36 pounds reported in 2004. Manganese and

nickel compounds were also significantly higher in 2005, while lead compounds was 33% lower than reported in 2004. Because accurate reporting is important to the community, and to TRI, DNREC directed Claymont Steel to conduct a second emissions test to verify the accuracy of the initial test. The two tests were done by different independent emissions testing contractors and laboratories. The amounts reported for 2005 were the result of the early 2006 test and the amounts reported for 2006 are based on the results of both tests conducted in 2006. Mercury emissions testing conducted in 2007 report a further reduction in mercury emissions of 50 pounds (16%), following a reduction of 11% for 2006 as a result of Claymont Steel implementing a comprehensive Mercury Source Reduction Program.

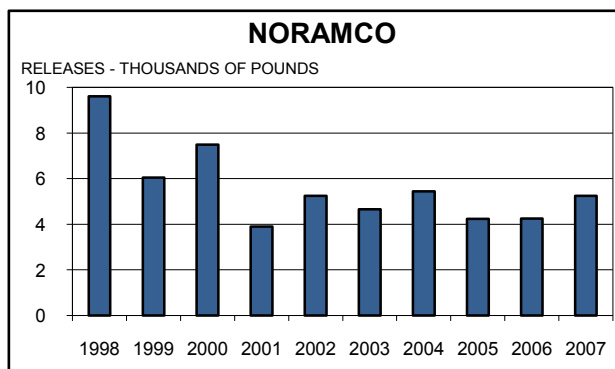
In August 2006, as part of the Source Reduction Program, Claymont Steel joined with other stakeholders and the EPA in announcing the National Vehicle Mercury Switch Recovery Program. This program is designed to recover mercury switches used in lighting and braking systems in 2002 and older vehicles as they are being prepared for recycle. Mercury in these switches can contaminate steel scrap destined for recycling, and a portion of this mercury can be released to air during the steel melting process. Although Claymont Steel does not prepare vehicles for recycling, the company has committed to purchasing shredded automobile scrap steel from suppliers that are participating in the switch recovery program. Further reductions are expected during following years.

Rank #25 - BASF – This facility is located in Seaford, and formerly known as Johnson Polymer, changed ownership in 2006. BASF was responsible for preparation of the 2007 TRI data for the facility. This BASF facility manufactures emulsion polymers, sometimes referred to as latex, primarily for the printing and packaging industries but also used as additives for paints and coatings. Typical customers include ink and coating manufacturers.

BASF reported on six TRI chemicals in 2007. The total amount of individual releases reported in 2007 increased by 9%, the result of a production increase and changes in product mix. Ammonia was the highest on-site release reported by BASF for 2007. It is used to adjust pH in the process and accounted for 72% of all on-site releases. Reported on-site releases of all chemicals have increased by 220% since 1998 primarily due to changes in methods used to more accurately estimate release amounts.



Rank #26 - Noramco - Located in Wilmington, Noramco was formed in 1979. Noramco produces bulk active pharmaceutical ingredients used in pain relief medicines. The pharmaceutical products are primarily sold to Johnson & Johnson pharmaceutical sector finishing facilities and several large generic pharmaceutical companies in the United States. Noramco reported on-site releases of six TRI chemicals in 2007. Dichloromethane and methanol made up 73% of the total on-site releases. All on-site releases for 2007 were to air.

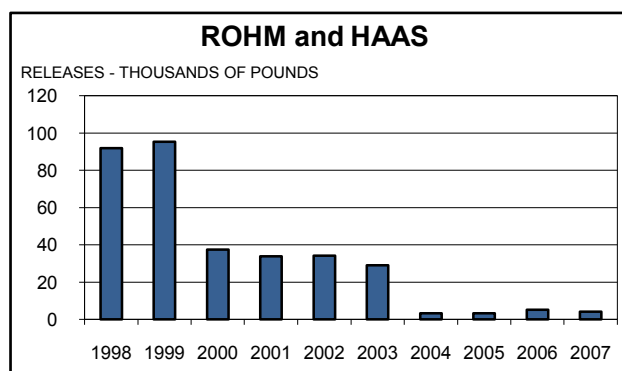


processes using dichloromethane. In May 2007, an accidental release of 960 pounds of dichloromethane occurred, and that also contributed to the increase in on-site releases reported for 2007.

Although on-site releases increased by 23% in 2007, Noramco on-site releases have decreased to 55% of the 1998 amounts, with year-to-year variations reflecting the levels of production related to use of the specific chemicals, amounts of specific products produced, and efforts to reduce releases.

For 2007, overall site production increased by 15%, with production increasing in those

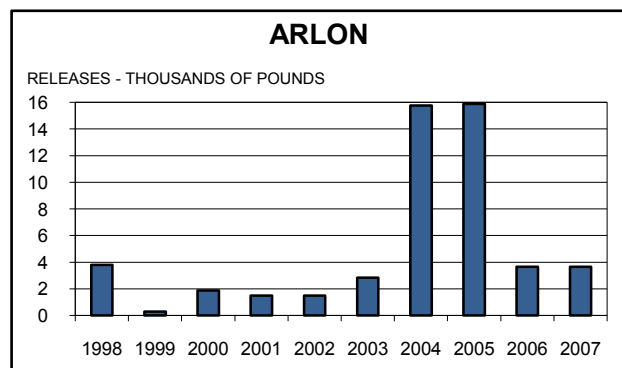
Rank #27 - Rohm and Haas – This facility manufactures polishing pads and slurries for the semiconductor, electronics, and glass industries. The facility is located south of Newark in the Diamond State Industrial Park.



process. The majority of the DMF used is recycled in the distillation equipment for reuse in the process. All on-site releases of DMF were to air, and were primarily stack emissions from the scrubber and oxidizer used to control process emissions.

Rohm & Haas reported on three TRI chemicals for 2007. N,n-Dimethylformamide (DMF), is used as a solvent carrier in the polishing pad manufacturing process and accounted for all of their on-site releases. Although facility production increased by 8% in 2007, total DMF releases decreased 18% as a result of improvements in scrubber operating efficiency. On-site releases are only 5% of the facility 1998 levels. Releases of DMF mostly occur through evaporation from the poromerics coating and washing

Rank #28 - Arlon – Arlon specializes in ceramic-filled fluoropolymers (i.e., PTFE) and other laminates that are used in frequency-dependent circuit applications such as base stations and antennas for wireless telecommunications. Arlon also produces precision-calendared silicone rubber-coated fabric sheets and specialty extruded silicone rubber tapes.



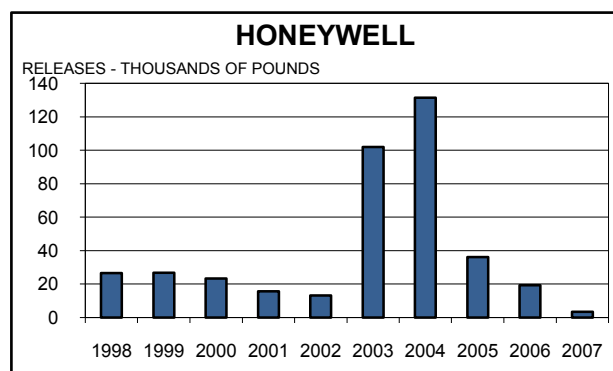
Arlon reported three TRI chemicals, ethylbenzene, xylene and copper, in 2007. Arlon uses xylene as a chemical processing aid in the coating of fiberglass with the silicone rubber dispersion. Ethylbenzene is a component found in many commercial grades of xylene. A vast majority of the solvents used in the coating process is

destroyed in the on-site thermal oxidizer system. Copper is used in the antenna assemblies, and 95% of the copper waste was recycled.

On-site release amounts reported by Arlon increased significantly in 2004 because of a failure in the heat exchanger in the thermal oxidizers that destroy solvent releases from the coating process. The heat exchanger was repaired in September 2005, and the release amount returned to near historical levels in 2006. Production increased by 8% in 2007, but on-site releases were unchanged compared to 2006.

Rank #29 - Honeywell International - Honeywell, located in Claymont, manufactures specialty chemicals that are used in agricultural, pharmaceutical, and household products. This facility also produces boron trifluoride, used in the production of hydrocarbon resins, lubricants, and adhesives.

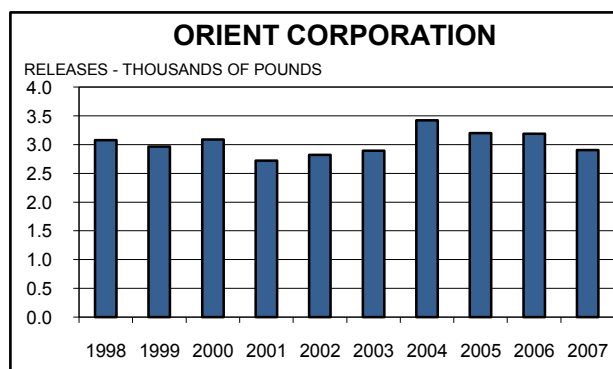
The Honeywell facility reported on six TRI chemicals in 2007. Releases of boron trifluoride, n-hexane, and hydrogen fluoride accounted for over 99.7% of the on-site releases. Although production increased 17% in 2003, the primary reason for the increase in the reported amount that year was that Honeywell performed stack testing and is using this more accurate basis for estimating releases.



In 2004, production increased 31% and the increase in on-site releases was a direct result of the production increase. During 2005, Honeywell completed a two phase emission control project that reduced on-site emissions by 72%, even with a production increase of 11%. In 2006, the combination of 11% reduced production and the full year impact of the phase one of the emission reductions project further reduced on-site releases by another 47%. Most of this impact was for n-hexane, falling by 60% compared to 2005. In 2007, total on-site releases fell by 15,865 pounds (82%) compared to 2006 due to the full year impact of the phase two emission reduction control project. Although production fell by 15%, releases of n-hexane fell by 8,827 pounds (82%), and releases of boron trifluoride fell by 1,173 pounds (70%).

Rank #30 - Orient - Orient Corporation of America was established in Port Newark, NJ in 1979. Its parent company, Orient Chemical Industries, Ltd., is located in Osaka, Japan and was established in 1917. Orient distributes various dyes, pigment dispersions and charge control agents.

In order to meet the increasing demand for its products, Orient Corporation of America moved its manufacturing operations to Seaford, Delaware in 1991 where it constructed a new manufacturing facility for the production of Nigrosine Dye, a product used in phenolic and polyamide resins and special paints. Orient supplies a large share of domestic demand for this type of dye.



Orient reported on four TRI chemicals for 2007. All on-site releases were to air, and compared to 2006, were lower by 9% while production for 2007 was lower by 16%. Aniline was the predominant on-site release and accounted for 92% of the total. The remaining 8% on-site release was for nitrobenzene. Aniline and nitrobenzene are used in the production of dyes. Chromium and zinc compounds are purchased, repackaged, and sold as is with no releases. A small amount of nitrobenzene was sent off-site for treatment. Aniline waste was treated for recovery from on-site air, as well as sent off site for energy recovery.

Although production levels have increased 19% since 1998, on-site releases have decreased 6%, the result of higher efficiency due to lengthening of the production cycle and a corresponding reduction of startup/shutdown times.

Combined Second 15 Facilities Trend - Figure 14 shows a trend of the totals for the facilities ranked #16-30 for reported on-site releases.

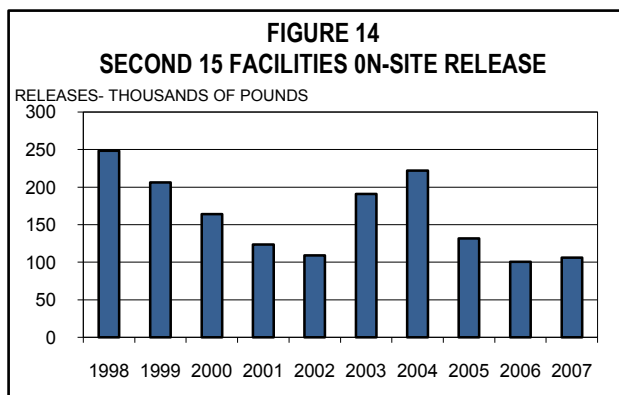


Figure 14 shows a trend of the totals for the facilities ranked #16-30 for reported on-site releases. The trend is up by 6% for 2007 and down by 57% since 1998. Because of the decrease in amounts of the Second 15 group, its contribution to the state total decreased from 3% in 1998 to 1% in 2007. Facilities in the Second 15 group tend to be more closely spaced in their rankings with regard to pounds released on-site. This adds to the variability in rankings from year-to-year as individual facility releases vary in their normal course of operations.

Persistent Bioaccumulative Toxic (PBT) Chemicals, 2000-2007

For reporting year 2000 and beyond, EPA established substantially lower reporting thresholds for 12 existing chemicals and one chemical category that are highly persistent and bioaccumulative in the environment (PBTs). Six new chemicals and one new category were also added to the PBT list for 2000. The new thresholds apply regardless of whether the PBT chemical is manufactured, processed, or otherwise used. Table 7 provides a current list of the PBT chemicals and their thresholds.

TABLE 7
PBT CHEMICALS AND
REPORTING THRESHOLDS
(pounds/year)

Chemical or Chemical Category	Threshold (Pounds)	2007 REPORTS
Aldrin	100	0
Benzo[g,h,i]perylene	10	11
Chlorodane	10	0
Dioxin and dioxin-like compounds category	0.1 grams	6
Heptachlor	10	0
Hexachlorobenzene	10	1
Isodrin	10	0
Lead *	100	1
Lead and lead compounds *	100	15
Mercury	10	2
Mercury compounds	10	7
Methoxychlor	100	0
Octachlorostyrene	10	1
Pendimethalin	100	0
Pentachlorobenzene	10	2
Polychlorinated biphenyls (PCB's)	10	1
Polycyclic aromatic compounds category	100	16
Tetrabromobisphenol A	100	0
Toxaphene	10	0
Trifluralin	100	0

* Lower Threshold For 2001 Reports

TOTAL

63

Not all of the PBT chemicals released in prior years were reportable, even though it is likely these chemicals were released at, or near, the current reported rate if the facility had no significant change in its operation. For example, 16 facilities reported lead or lead compounds in 2007 compared to seven in 2000. All of these facilities were in operation prior to 2001. Additional release information on all PBTs reported to the Delaware TRI program can be found starting on the following page.

TABLE 8
2007 TRI PBT DATA SUMMARY
(REPORTED AMOUNTS IN POUNDS)

	PBTs only 2005	PBTs only 2006	PBTs only 2007	All Data 2007
No. of facilities	28	26	30	69
No. of Form As	NA	6	4	44
No. of Form Rs	61	54	59	294
No. of Chemicals	11	11	11	102
On-site Releases				
Air	4,095	4,076	4,173	6,920,246
Water	1,857	1,405	1,565	3,327,675
Land	26,559	25,309	15,270	406,188
Total On-Site	32,510	30,790	21,008	10,654,109
Off-site Transfers				
POTWs	11	7	5	1,243,120
Recycle	5,488,166	3,451,059	3,127,121	8,179,183
Energy Recovery	1	0	0	4,910,600
Treatment	12	4	9	171,044
Disposal	80,633	66,199	113,770	7,144,231
Total Transfers	5,568,822	3,517,269	3,240,905	21,648,179
On-Site Waste Mgmt.				
Recycle	50,619	54,993	3	10,945,896
Energy Recovery	0	0	0	20,387,061
Treatment	749	769	858	39,879,302
Total On-Site Mgmt.	51,368	55,762	861	71,212,259
Total Waste	5,652,701	3,603,820	3,262,774	103,514,547

Table 8 shows the results of PBT reporting for 2005-2007 compared to total 2007 TRI data. PBT on-site releases for 2007 comprise about 0.20% of the total TRI on-site releases. Total PBT wastes are about 3.2% of total TRI wastes. Total reported PBT wastes decreased by 341,000 pounds (9.5%) in 2007, largely because of decreased transfers to off-site recycle. PBT on-site releases were also lower for 2007 by 9,782 pounds (32%); the reduction entirely because of a lower amount of lead and mercury compounds disposed in the Indian River Power Plant on-site landfill. PBT reports could be filed on Form A for the first time in 2006, as explained on page 3. Six PBT reports were filed using Form A in 2006, and four were filed for 2007, so this may have influenced some or all of the amounts, although the total of 63 PBT reports is close to the counts of 2005 and 2006.

Table 9 below shows the amounts of each PBT chemical reported as released by the TRI reporting facilities in 2007. Lead compounds, largely released from coal-fired power plants, made up over 95% of the total on-site PBT releases. Over 88% of the lead compounds transferred off-site were for recycle from Johnson Controls. Almost the entire amount of mercury transferred off-site was for recycle from the closure of the Occidental Chemical chlor-alkali facility.

TABLE 9
2007 PBT RELEASE SUMMARY
(REPORTED AMOUNTS IN POUNDS)

2007 PBT CHEMICAL	FORM R REPORTS	FORM A REPORTS	ON-SITE RELEASES				TRANSFERS OFF-SITE	ON-SITE WASTE MGMT.
			TOTAL AIR	TOTAL WATER	TOTAL LAND	ON-SITE TOTAL		
BENZO (G,H,I)PERYLENE	9	2	1.79	5.01	0.82	7.62	0.17	471.00
DIOXIN AND DIOXIN-LIKE COMPOUNDS	6	0	0.02	0.01	0.00	0.03	48.79	0.00
HEXACHLOROBENZENE	1	0	0.00	0.70	0.00	0.70	1,325.60	0.00
LEAD	1	0	3.30	6.00	0.00	9.30	0.00	0.00
LEAD COMPOUNDS	15	0	2,984.76	1,541.72	14,605.00	19,131.48	3,212,552.23	0.00
MERCURY	2	0	11.32	5.43	0.00	16.75	26,382.00	0.00
MERCURY COMPOUNDS	7	0	626.10	2.00	46.00	674.10	127.47	0.00
OCTACHLOROSTYRENE	1	0	0.00	0.00	0.00	0.00	172.80	0.00
PENTACHLOROBENZENE	2	0	18.30	0.09	0.00	18.39	23.10	0.00
POLYCHLORINATED BIPHENYLS (PCBs)	1	0	0.00	0.00	0.00	0.00	34.20	0.00
POLYCYCLIC AROMATIC COMPOUNDS	14	2	527.31	4.06	618.43	1,149.80	238.59	390.14
TOTALS	59	4	4,172.93	1,565.02	15,270.25	21,008.20	3,240,904.95	861.14

Source: 2007 DNREC Database December 2008

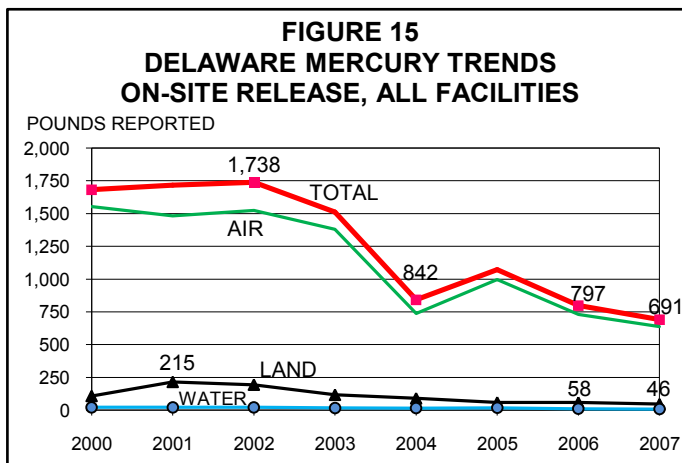
Dioxins are reportable in grams and have been converted to pounds

PBTs were eligible to report on Form A starting in 2006 in some cases

Premcor reported almost the entire amount of on-site PBT chemical waste management with 471 pounds of benzo(g,h,i)perylene and 387 pounds of polycyclic aromatic compounds being treated on-site. Appendix I shows the PBT data detail, listing each facility reporting on each PBT chemical. Also, see additional facility information in the Top 15/Second 15 sections regarding reasons for changes in reports from other PBT-reporting facilities.

Mercury and Mercury Compounds

Mercury (elemental mercury) and mercury compounds are an important part of the PBT category, and this section discusses some of the data in these reports. Overall total mercury and mercury compounds releases in Delaware for 2007 have decreased by 60% compared to the peak of 1,738 pounds in 2002. Figure 15 shows the combined trend for mercury and mercury compounds. We can also expect significant reductions in the future as a result of Delaware's Multi-P rule (see page 50) starting in 2009.

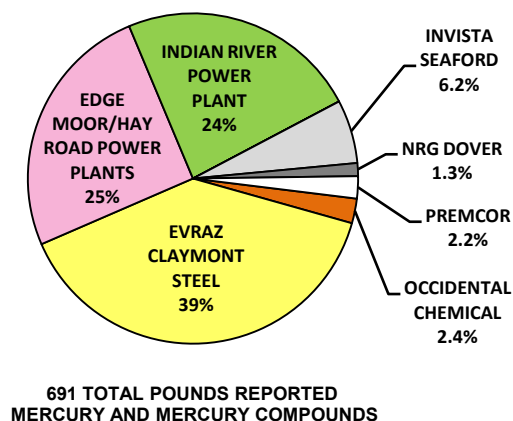


Reported **elemental mercury** on-site release amounts were lower by 34 pounds as Occidental Chemical transitions through its chlor-alkali plant shutdown. Occidental Chemical sent about 20,000 pounds of mercury off-site for recycling in 2007, following 540,000 pounds in 2005-6 as part of the shutdown activity starting November 2005. Occidental contributed virtually all 17 pounds of elemental mercury released on-site in 2007, down from a peak of 1,097 pounds reported in 2000. This amount will continue to decline as the facility completes the shutdown.

Reports of on-site releases of **mercury compounds** by Delaware facilities decreased 106 pounds (13%) in 2007 from normal changes in facility operations and also from the reduction in release to land noted on pages 19 and 38 for the Indian River Power Plant.

Figure 16 shows the percentage contributed by each of the facilities that reported a mercury or mercury compound release in 2007. Two facilities, Dentsply Caulk Lakeview and Intervet, were required to report because of mercury activity, but did not have any on-site mercury releases to report in 2007. On-site release amounts for mercury and mercury compounds can also be found in the Appendices on pages F-10-11 and I-2.

**FIGURE 16
2007 ON-SITE MERCURY RELEASES
FROM DELAWARE FACILITIES**



Carcinogenic TRI Chemicals

Some chemicals are reportable under TRI because they are either known or suspected human carcinogens. Known human carcinogens are those that have been shown to cause cancer in

TABLE 10
CARCINOGENS REPORTED BY
DELAWARE FACILITIES FOR 2007

CHEMICAL NAME	IARC	NO. OF REPORTS
ARSENIC	1	1
ARSENIC COMPOUNDS	1	2
BENZENE	1	5
CHROMIUM COMPOUNDS	1	9
ETHYLENE OXIDE	1	2
NICKEL COMPOUNDS	1	6
VINYL CHLORIDE	1	1
1,3-BUTADIENE	2A	2
4,4'-METHYLENEBIS(2-CHLOROANILINE)	2A	2
ACRYLAMIDE	2A	1
CREOSOTE	2A	1
FORMALDEHYDE	2A	1
POLYCHLORINATED BIPHENYLS (PCBs)	2A	1
TRICHLOROETHYLENE	2A	1
POLYCYCLIC AROMATIC COMPOUNDS	2A,B	16
ACRYLONITRILE	2B	1
COBALT COMPOUNDS	2B	4
DICHLOROMETHANE	2B	1
ETHYL ACRYLATE	2B	2
ETHYLBENZENE	2B	4
HEXACHLOROBENZENE	2B	1
LEAD	2B	1
LEAD COMPOUNDS	2B	15
NAPHTHALENE	2B	8
NICKEL	2B	3
NITROBENZENE	2B	1
P-CHLOROANILINE	2B	1
PROPYLENE OXIDE	2B	1
STYRENE	2B	5
TETRACHLOROETHYLENE	2B	1
TOLUENE DIISOCYANATE (MIXED ISOMERS)	2B	3
VINYL ACETATE	2B	2
TOTAL =		105

Source: 2007 DNREC Database, November, 2008

humans. Suspected carcinogens are those that have been shown to cause cancer in animals. Table 10 contains those known and suspected carcinogens that were reported by Delaware facilities for 2007. Next to each chemical is its International Agency for Research on Cancer (IARC) rating as a: Known (1), Probable (2A), or Possible (2B) carcinogen. Polycyclic aromatic compounds is a class of chemicals with chemicals in both 2A and 2B IARC classifications. Of the 10.3 million pounds of TRI chemicals reported by facilities as released on-site to the environment in 2007, 2.3% (231,971 pounds) were known or suspected carcinogens. For additional information on cancer rates and causes, please go to the Department of Public Health cancer web site listed in the "For Further Information" section on page 55.

Carcinogens Trend, 1998-2007

Releases on-site of all carcinogens decreased 39% (150,000 pounds) compared to 2006 data and have decreased 73% (624,940 pounds) since the peak in 1998. The number of carcinogen reports increased by five to 105 in 2007, and the total number of carcinogen chemicals remained at 32 following a large increase in the number of lead and lead compounds reporting facilities in 2001 (because of the reduced reporting threshold). Additional information on lead and lead compounds is in the PBT section on pages 37-39.

Table 11 on the next page contains amounts unadjusted for changes in reporting requirements. In order to put the trend in uniform perspective, adjustments must be made for changes in reporting requirements during this period. The downward trends of both unadjusted and adjusted values are shown in Figure 17 on the next page. Chemical reports required during only a portion of the time period because of changes in reporting requirements have been excluded for the entire period in the "adjusted" trend.

TABLE 11
1998-2007 TRI CARCINOGENS
REPORTED ON-SITE RELEASES, NOT ADJUSTED

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
KNOWN										
AIR	209,094	219,970	209,828	209,295	177,473	123,191	96,562	98,107	66,475	56,287
WATER	10,246	3,048	4,395	9,114	9,682	9,339	9,817	4,643	5,222	6,435
LAND	363,793	306,630	258,008	169,197	170,074	312,576	173,414	134,194	143,115	46,021
KNOWN TOTAL	583,133	529,648	472,231	387,606	357,229	445,106	279,793	236,944	214,812	108,743
PROBABLE										
AIR	53,558	139,293	55,418	44,326	35,581	24,216	27,417	23,600	18,946	18,628
WATER	0	0	0	0	0	4	4	4	4	4
LAND	0	0	0	0	0	0	0	0	0	8,212
PROBABLE TOTAL	53,558	139,293	55,418	44,326	35,581	24,220	27,421	23,604	18,950	26,845
POSSIBLE										
AIR	167,420	186,506	135,946	91,851	189,296	98,699	99,543	104,480	102,415	70,722
WATER	1,175	290	271	4,873	2,109	1,431	2,308	3,416	1,544	1,655
LAND	51,625	142	40	21,607	17,475	21,714	49,266	44,500	44,251	24,005
POSSIBLE TOTAL	220,220	186,938	136,257	118,331	208,880	121,844	151,117	152,396	148,210	96,383
TOTAL AIR	430,072	545,769	401,192	345,472	402,350	246,106	223,522	226,188	187,836	145,638
TOTAL WATER	11,421	3,338	4,666	13,987	11,791	10,773	12,129	8,062	6,770	8,094
TOTAL LAND	415,418	306,772	258,048	190,804	187,549	334,290	222,680	178,694	187,366	78,238
GRAND TOTAL	856,911	855,879	663,906	550,263	601,690	591,169	458,331	412,943	381,972	231,971

Source: DNREC TRI 2007 Database, December 2008

These adjustments generally exclude the power-generating and ore-processing industries, and involve metallic compounds produced from impurities in the fuel and raw materials used by these facilities. These facilities were required to start reporting in 1998. Adjustments taking place in this period affected the air, water, and land release amounts. For example, new reports for lead and lead compounds at their lower thresholds starting in 2001 accounted for 19,141 pounds of exclusions in 2007. Lead and lead compounds reports, under the previous higher thresholds, were not excluded if the facility was already reporting them for 2000 or before. In both the adjusted and unadjusted trends, the downward trend continued in 2007. The primary reason for this reduction is the carcinogens transferred off-site (68,367pounds for 2007) that had previously been disposed on-site at the Indian River Power Plant. Additional carcinogen detail is reported in Appendix J.

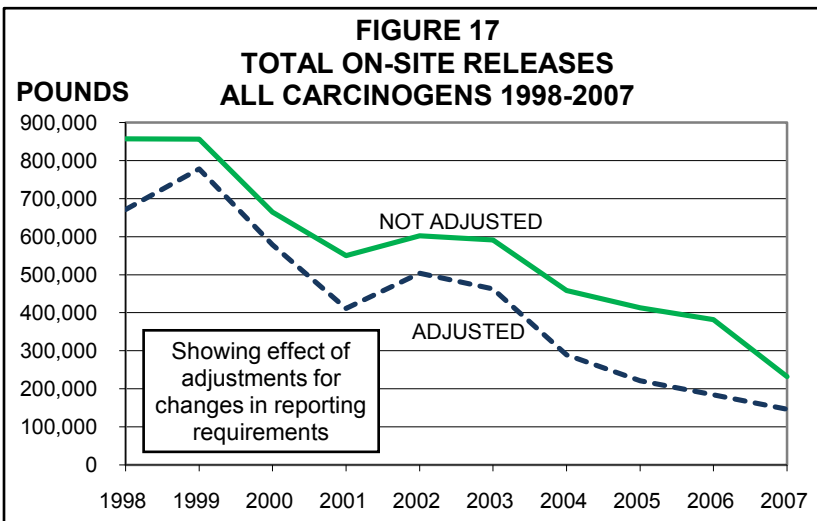
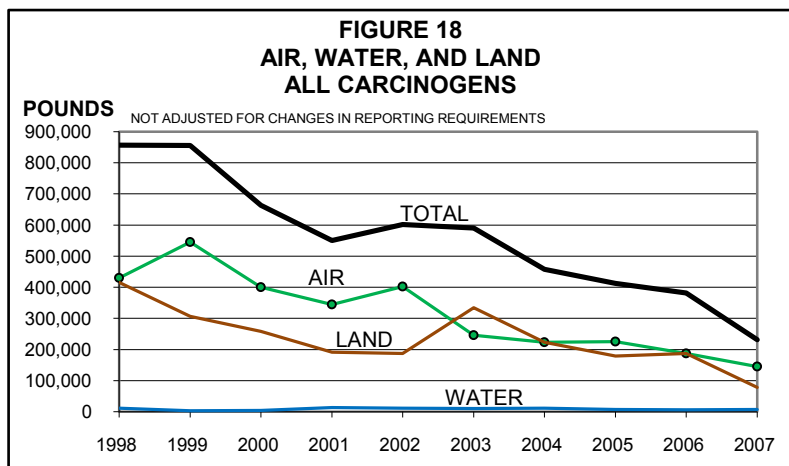


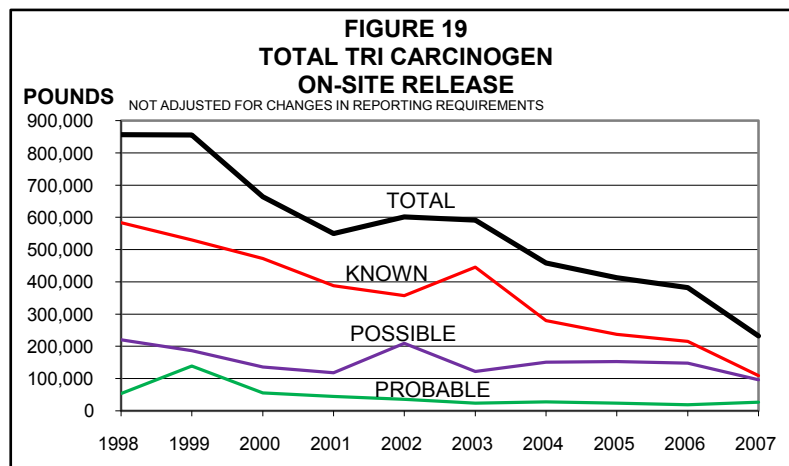
Figure 18 shows the portion of each of the media category releases on the total reported carcinogen release trend. As in Figure 17, the trend is down. Releases to air and land largely influence the total, depending on the year, while releases to water play a much smaller part.



Known Carcinogens

Figure 19 shows the trend of each of the three carcinogen groups and their effect on the total on-site release. On-site releases of known carcinogens are down 49% since 2006. Releases of known carcinogens to land are 52% of all known carcinogen on-site releases. Two known carcinogens were reported as released to land for 2007. Fuel combustion produces ash

containing chromium and nickel compounds. Chromium compounds, 91% of which are released to land, and are the highest amount of known carcinogen released, at 29,987 pounds to land, with the Indian River Power Plant and INVISTA contributing over 99% of these releases to land. Nickel compounds, 64% of which is released to land, is the second of the on-site releases in the known carcinogen category at 16,034 pounds. The Indian River Power Plant reported almost all of the nickel compounds releases to land for 2007. From 1997-2000, the release to land reports of nickel compounds, a product of fuel combustion at Premcor, greatly influenced the values



for known carcinogens. Their 1997 value was 283,000 pounds. Now, the ash and chemicals in the ash are transferred out-of-state for waste management. Arsenic compounds, the remaining known carcinogen released to land for 2006 (31,000 pounds) and released by the Indian River Power Plant, was not reported for 2007 because it was below the reporting threshold.

Releases of known carcinogens to air are 42% of all known carcinogen on-site releases. Reported releases to air of known carcinogens decreased by 15% in 2007 and are now at 27% of the amount reported in 1995. Vinyl chloride contributed 67% of the known carcinogen category releases to air in 2007. Vinyl chloride contributed 26% of all carcinogen releases to air and 16% of carcinogen total on-site releases to air, water, and land in 2007. Vinyl chloride, with a total release to air of 37,460 pounds and only reported by Formosa Plastics, is highest in total releases in the known carcinogen category. Kaneka reported vinyl chloride up until 2003, but Kaneka is now closed. Benzene releases to air, now almost

all from Premcor and Sunoco, have declined from 58,000 pounds in 1995 (from Premcor and the now closed Metachem facility) to 9,826 pounds in 2007. Benzene made up 18% of the known carcinogen releases to air for 2007, compared to 23% in 1995.

Releases to on-site water of known carcinogens were 6% of the known carcinogen total for 2007. Nickel compounds, mainly released to water from Premcor refinery and the Edge Moor/Hay Road power plant, contributed 87% (5,572 pounds) of all the known carcinogen releases to water, with chromium compounds contributing 13% (860 pounds).

Possible Carcinogens

About 73% of the total amount is reported released to air, 25% to land, and about 2% to water. The trend for 2007 is down by 35%, or 52,000 pounds. The highest chemical release in this category is vinyl acetate at 28,897 pounds, 97% of which was reported released by Formosa Plastics. The Formosa Plastics release was estimated using a higher basis starting in 2002. Although the 27,987 pounds reported by Formosa for 2007 is much higher than the 2,000 pounds reported for 2001, the actual amount from prior years may not be much different because of the change in basis in 2002. Vinyl acetate reported as released to air by the Formosa Plastics facility decreased by 34% to 29,987 pounds for 2007. Styrene is the second highest release in the possible carcinogen category. In 2006 Dow Reichhold reported a release of 21,372 pounds of styrene to air when a tank car at the facility containing styrene monomer spontaneously polymerized. For 2007, Dow Reichhold reported styrene releases of 1,492 pounds. Justin Tanks reported 18,400 pounds, 81% of the total styrene release for 2007, and the remainder was split between smaller releases at Dow Reichhold and three other facilities. Ethylbenzene is the third highest amount, at 6,521 pounds, reported released in this category. All of these releases were to air, and the majority of the releases were from the Chrysler and Premcor facilities.

Probable Carcinogens

The probable carcinogen total increased by 7,895 pounds for 2006-2007 and is now at 26,845 pounds. The primary reason for this increase was the 8,502-pound release to land of creosote reported by the DuPont Edge Moor facility. This release was from the replacement of approximately 1,000 railroad ties on the DuPont site. Probable carcinogens are now at 24% of the 1995 amount and 19% of the 1999 amount. The total probable carcinogen release to air peak in 1999 (139,293 pounds) was due to an 83,000-pound reported release of formaldehyde from Premcor. The majority of the 26,845 pounds of five probable carcinogens was reported released to on-site air during 2007. The largest release to air was trichloroethylene, reported by Camdel Metals, and 1,3,-butadiene, reported by Dow Reichhold and the Premcor refinery. They combined for 82% of the 18,628 pounds of probable carcinogen released to air. The trend for trichloroethylene release increased 339 pounds (4%) from 2006-2007 but has declined 66% from 1995-2007, down from 29,332 pounds in 1995 to 9,844 pounds in 2007. The trend for 1,3,-butadiene, reported by Premcor and Dow Reichhold, is down 1,481 pounds (21.6%) for 2007 to 5,384 pounds, and is only 7.4% of the 72,439 pounds reported in 1995. Both facilities reported decreases in 1,3-butadiene releases for 2007.

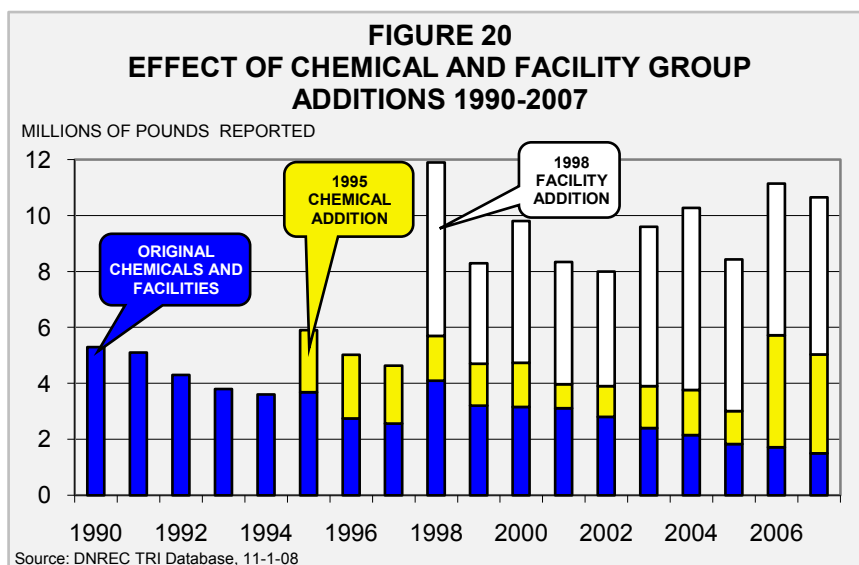
As before, in **Limitations of TRI Data** on Pages 3-4, we urge caution when using this data, as THIS DATA DOES NOT INDICATE AMOUNT OF HUMAN EXPOSURE.

Discussion about specific facilities and their releases can be found on pages 17-36 in the Top 15 and Second 15 Facilities Sections.

Trend Analysis

Effect of Chemical and Facility Group Additions, 1990-2007

As previously mentioned on page 5, significant groups of chemicals and facilities were added to the TRI program at two times over the years. Other smaller groups, or even individual chemicals, were also added or deleted over this time. Figure 20 shows these effects starting in 1990 and following the trend of each group since it was added to the TRI program. Data from the beginning of the TRI program in 1987-89 is excluded because reporting requirements changed significantly and a valid comparison of this data with later data is not feasible.



The trend of each group and the reports affecting the trends will be discussed in the following portions of this Trends Analysis section. All groups show generally decreasing trends over time, but the in the group of chemicals added in 1995, a Premcor report for nitrate compounds in the amount of 2.7 million pounds for 2006 caused an increase of 2.9 million pounds for that group.

The table below shows the amount reported in millions of pounds for each group at the time it was added, the 2007 reported amount, and the amount of change since the time it was added. If each group had remained constant at the time of its addition, amounts reported for 2007 would be 13.7 million pounds instead of the 10.7 million pounds actually reported for 2007. The reporting facilities in Delaware have effected a reduction of 3.07 million pounds, or 22.4%, in their reported TRI chemical releases since 1990.

GROUP	STARTING YEAR AMOUNT Millions of Pounds	2007 AMOUNT Millions of Pounds	CHANGE SINCE STARTING Millions of Pounds
Original Facilities and Chemicals	5.30	1.50	-3.80
1995 Chemical Addition	2.23	3.54	+1.31
1998 Facility Addition	6.20	5.62	-0.58
TOTAL	13.73	10.66	-3.07

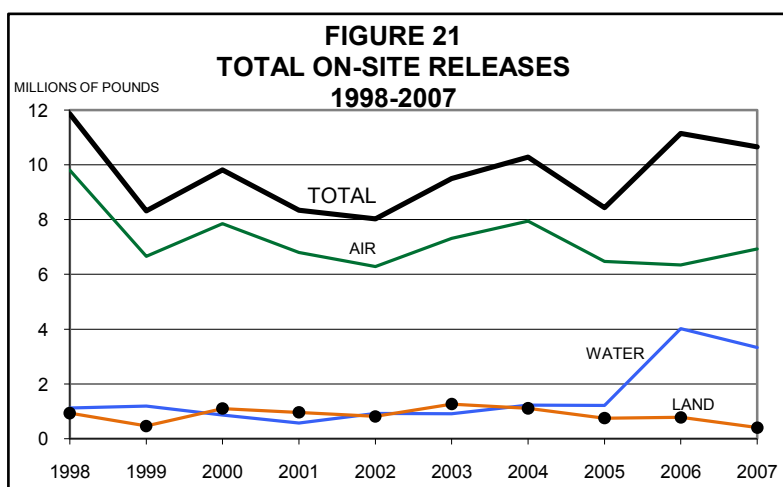
Release and Waste Management Trends, 1998-2007

TRI data is available back to 1987, the first year of the TRI program. Changes in reporting requirements over time have caused an increase both in the number of chemicals and in the number industries subject to reporting. As explained on page 5, significant changes to TRI reporting occurred in 1995, 1998 and 2000, when large increases in chemicals (1995), industries subject to reporting (1998), and reductions in PBT thresholds (2000) occurred. **This section shows all reporting results including these additions.** Comparison of this data with earlier data must be done carefully, as some chemicals and/or industries may not have been required to report over the entire time.

The analysis presented in this section uses 1998 as a base year for presenting trends for all reportable chemicals and facilities and is **not adjusted** for any changes in reporting requirements. Figure 21 below shows the on-site release trends during the entire 1998-2007 period and Table 12 on the next page shows amounts reported for the last 10 years.

On-Site Releases, 1998-2007

On-site releases include emissions to the air, discharges to bodies of water, and releases at the facility to land, including placement in on-site landfills. On-site release amounts decreased 4.4% (491,000 pounds) since 2006. Figure 21 shows the trend of on-site releases without adjustments. The trend begins in 1998 when the change in reporting requirements required that a large number of new facilities



start to report that year. Significant changes reported in 2007 include the facilities and chemicals shown in the table below.

FACILITY	CHEMICAL	MEDIA	CHANGE (pounds)
Indian River Power Plant	Hydrochloric acid	Air	+300,000
Edge Moor/Hay Rd. Power Plants	Hydrochloric acid	Air	+180,000
Premcor	Propylene	Air	+135,000
Perdue Georgetown	Nitrate Compounds	Water	-183,000
Premcor	Nitrate Compounds	Water	-424,000

Some of these changes (higher or lower) like the propylene reported for 2007 or the nitrate compounds reported for 2006 by Premcor have been caused by improvements in the way facilities estimate amounts. Other changes were caused by normal year-to-year changes in business at the facility. These reports are the primary reason for the large changes in the total for 2006-7. These changes are also discussed in the Top 15 or Second 15 facility profiles on pages 17-34. In addition, you may contact the facility for a more in-depth discussion of the reasons for specific changes.

TABLE 12
1998-2007 TRI DATA SUMMARY
(IN POUNDS)

NOT ADJUSTED FOR CHANGES IN REPORTING REQUIREMENTS

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
No. of Facilities	80	76	80	82	83	85	74	73	70	69
No of Form As	75	72	61	57	55	55	52	53	45	44
No of Form Rs	277	254	310	316	317	327	309	295	286	294
No. of Chemicals	106	101	109	104	106	103	102	103	100	102
On-Site Releases										
Air	9,796,431	6,651,166	7,841,017	6,796,684	6,281,850	7,308,283	7,935,922	6,468,896	6,341,614	6,920,246
Water	1,126,527	1,197,861	866,312	573,937	928,813	918,650	1,231,061	1,211,798	4,022,175	3,327,675
Land	937,708	462,579	1,103,632	965,666	814,385	1,268,396	1,111,392	752,894	781,701	406,188
Unadjusted On-Site Release	11,860,666	8,311,606	9,810,961	8,336,287	8,025,048	9,495,329	10,278,375	8,433,588	11,145,489	10,654,109
Off-Site Transfers										
POTW's	3,286,302	2,996,401	2,199,807	1,575,732	1,201,161	1,452,241	1,466,465	1,514,246	1,421,321	1,243,120
Recycle	12,002,926	9,295,315	8,649,678	8,845,326	9,248,730	8,376,865	9,852,872	11,355,866	8,528,336	8,179,183
Energy Recovery	1,491,543	1,389,936	2,543,840	2,642,626	2,538,090	2,834,075	2,755,903	2,716,779	4,202,150	4,910,600
Treatment	630,761	894,822	901,604	183,567	398,572	370,950	174,893	194,679	237,073	171,044
Disposal	3,983,506	3,056,466	3,816,862	3,878,689	4,196,691	4,084,899	3,919,599	4,400,539	4,739,121	7,144,231
Total Transfers	21,395,038	17,632,940	18,111,791	17,125,940	17,583,245	17,119,029	18,169,731	20,182,110	19,128,001	21,648,179
On-Site Waste Mgmt.										
Recycle	34,549,050	32,671,856	31,188,694	24,133,885	25,033,817	22,404,667	8,772,135	10,079,028	10,594,593	10,945,896
Energy Recovery	16,155,665	22,981,591	29,095,221	25,863,740	15,740,469	16,323,700	23,440,027	19,786,104	17,937,031	20,387,061
Treatment	68,475,327	69,501,151	64,404,879	40,734,134	33,392,650	30,443,585	31,807,455	38,330,991	39,516,068	39,879,302
Total On-Site Mgmt.	119,180,042	125,154,598	124,688,794	90,731,759	74,166,935	69,171,952	64,019,617	68,196,123	68,047,692	71,212,259
Total Waste	152,435,746	151,099,144	152,611,546	116,193,986	99,775,229	95,786,309	92,467,723	96,811,821	98,321,183	103,514,547

NOT ADJUSTED FOR CHANGES IN REPORTING REQUIREMENTS EXCEPT PBT'S AS NOTED

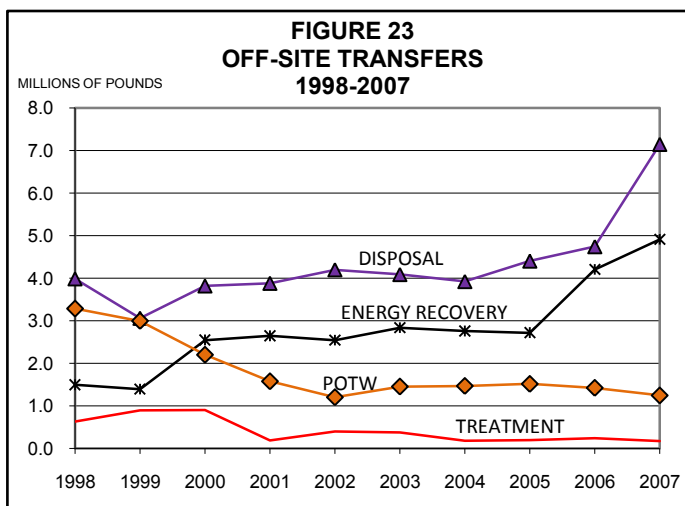
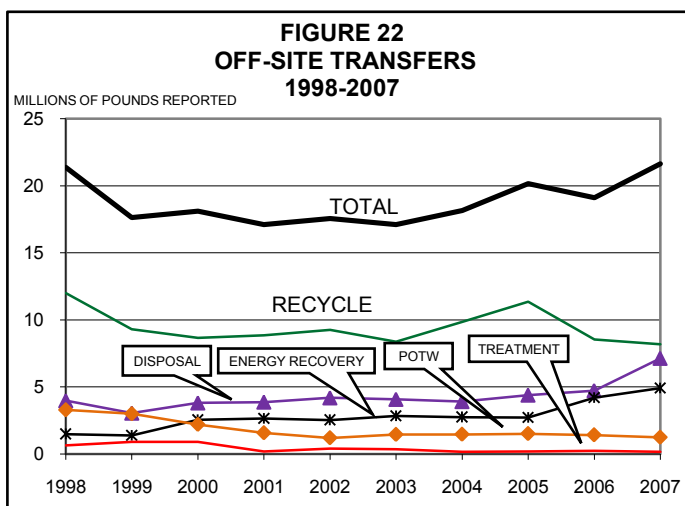
SOURCE: DNREC 2007 DATABASE, NOVEMBER 2008



Off-Site Transfers, 1998-2007

An off-site transfer is a transfer of toxic chemicals in wastes to another facility that is physically separate from the reporting facility and may even be out of state. Chemicals are reported as transferred to an off-site facility when they are transported away from the reporting facility for the purposes of treatment at a publicly owned treatment works (POTW), recycling, disposal, energy recovery, or non-POTW treatment facility. Although the off-site transfers may be of less immediate local concern than on-site releases, the transfers to POTWs, treatment, and disposal still represent toxic chemicals in wastes that must be ultimately accounted for.

As noted on page 10 and in Table 12 on page 46, the amounts reported as transferred off-site are over twice as much as the amounts of on-site releases. Off-site transfers increased 13% in 2007, driven by disposals and energy recovery. Increases in disposal amounts were seen in reports from the DuPont Edge Moor facility for manganese and vanadium compounds and from the Indian River Power Plant for barium compounds. Increases in off-site energy recovery amounts were driven by an increase in toluene from Noramco. Figures 22 and 23 show the trends in amounts of TRI chemicals in wastes transferred off-site for all facilities and chemicals reporting since 1998. To increase clarity, the lower portion (0.0 - 8.0 million pounds) of Figure 22 is expanded in Figure 23. The amount of recycle had been relatively steady from 1999-2003, but the increases in 2004 and 2005 were erased with decreases in 2006-7. The amounts sent to POTW and non-POTW treatment have shown little change. For comparison, please look at the corresponding values in Table 12. Significant changes affecting the off-site transfer trends in 2007 are:

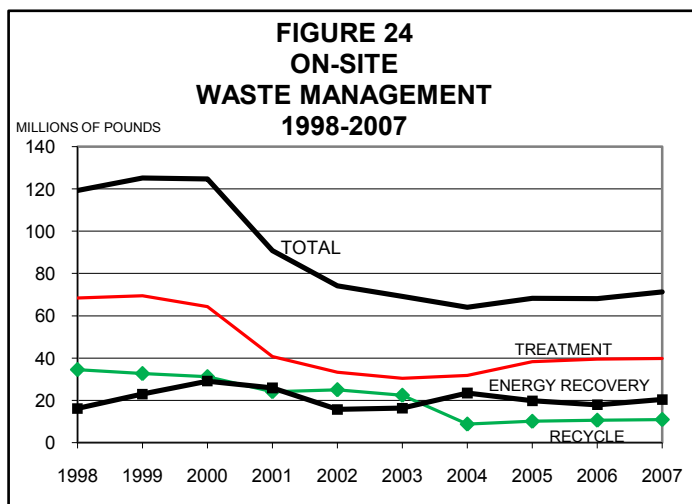


FACILITY	CHEMICAL	OFF-SITE METHOD	CHANGE (pounds)
DuPont Edge Moor	Manganese Cpds.	Disposal	+1,183,000
Noramco	Toluene	Energy Recovery	+506,000
DuPont Edge Moor	Vanadium Cpds.	Disposal	+331,000
Indian River Power Plant	Barium Cpds.	Disposal	+240,000
Cytec Industries	Methanol	POTW	-240,000
Ciba	Methanol	POTW, Recycle	-281,000

On-Site Waste Management, 1998-2007

In some facilities, wastes are managed on-site instead of being sent off-site for processing or disposal. On-site waste management is the processing of chemicals in wastes that do not leave the site of the reporting facility. When chemicals are recycled, recovered for energy, or

treated at the facility, they are reported as managed on-site. Although these amounts represent a loss of materials (raw materials and/or finished product) to the facility as waste, they are not as much of a threat to the environment as the other on-site categories since these amounts are treated or recycled and not disposed of or released on-site. There is, of course, the risk that these chemicals may be released accidentally on-site to the environment during the waste management process. Also, most waste management operations are not 100% efficient, so a small portion of the



waste being treated in these operations may be released on-site and must accounted for in the on-site releases reported by the facility. Figure 24 shows the trends for the on-site waste management activities since 1998. The decrease in 2001 was due to a decrease of 7,500,000 pounds in formaldehyde energy recovery, a decrease of 2,100,000 pounds in methanol treatment, and a decrease of 8,000,000 pounds in MTBE treatment at Premcor, and a decrease of 8,000,000 pounds in hydrochloric acid treatment at DuPont Edge Moor.

Some significant changes reported in on-site waste management amounts for 2007 are:

FACILITY	CHEMICAL	ON-SITE WASTE MANAGEMENT METHOD	AMOUNT OF CHANGE (pounds)
Premcor	Carbonyl sulfide	Energy recovery & treatment	+5,200,000
Premcor	Carbon Disulfide	Treatment	+2,200,000
Premcor	Ammonia	Energy recovery	+1,900,000
DuPont Edge Moor	Chlorine	Treatment	-613,000
Premcor	Propylene	Treatment	-815,000
DuPont Edge Moor	Hydrochloric acid	Treatment	-3,600,000

These changes were balanced by other smaller increases and decreases from other reports. Total pounds for on-site waste management increased by 5% since 2006, but have decreased 40% since 1998. The on-site waste management amount totals are in Table 12 on page 46, and Figure 6 on page 11 shows the relative amounts.

Receiving TRI Chemicals in Wastes

When a facility transfers TRI chemical waste off-site, these wastes go to a receiving facility. Table 13 shows the total amounts of TRI chemicals reported as sent to Delaware facilities from other TRI facilities, both in-state and out-of-state. Few of the receiving facilities in Delaware also report to the TRI program (only one for 2007), but most do not, based on the reporting requirements shown on pages 2 and 3. Only 0.22% of the TRI chemical wastes transferred to Delaware facilities were transferred to a TRI facility in 2007. DNREC TRI does not receive reports from any out-of-state facilities that transfer wastes into Delaware. This data was obtained from the U.S. EPA.

TABLE 13
SUMMARY OF REPORTED TRI TRANSFERS
TO DELAWARE FACILITIES
FROM OTHER TRI FACILITIES IN 2007

(IN POUNDS)

DELAWARE RECEIVING FACILITY	TOTAL TRANSFERS TO DELAWARE FROM DELAWARE FACILITIES	TOTAL TRANSFERS TO DELAWARE FROM OUT OF STATE FACILITIES	TOTAL TRANSFERS RECEIVED BY DELAWARE FACILITIES
ASHWORKS DELAWARE CONCRETE PUMP SALES	0	140	140
CANNON IRON & METAL	89,191	0	89,191
CLEAN EARTH OF NEW CASTLE	265,701	233	265,933
CLEAN EARTH OF NEWARK	0	69	69
DELAWARE RECYCLABLE PRODUCTS	16	0	16
DSWA RECYCLING CENTER	17,539	0	17,539
DELAWARE SOLID WASTE AUTHORITY CHERRY ISLAND	8	0	8
DELAWARE SOLID WASTE AUTHORITY GEORGETOWN	0	0.0	0
DELAWARE SOLID WASTE AUTHORITY SANDTOWN	302	0	302
DUPONT EXPERIMENTAL STATION	0	19,539	19,539
KENT COUNTY WASTEWATER TREATMENT PLANT	80,385	0	80,385
INDUSTRIAL RESOURCE NETWORK, INC.	0	250	250
INTERNATIONAL PETROLEUM CORP. U.S. FILTER	0	6	6
KROEGERS SALVAGE	0	3	3
NEW CASTLE WASTEWATER TREATMENT PLANT	129,582	0	129,582
PIGEON POINT LANDFILL	0	1,246	1,246
SIEMENS	14	19,320	19,334
SOUTHERN METAL PROCESSING	1,600	0	1,600
CRODA *	3,704	0	3,704
VFL TECHNOLOGY CORPORATION	398	23,930	24,328
WILMINGTON WASTEWATER TREATMENT PLANT	1,012,537	6,518	1,019,055
TOTAL TRI TRANSFERS REPORTED	1,600,977	71,253	1,672,229

Source: U.S. EPA 2007 Data Run, October 30, 2008

* TRI Reporting Facility

The top receiving facility is the Wilmington Wastewater Treatment Plant, receiving TRI chemicals in wastewater from regional customers. Clean Earth of New Castle received the second highest amount, a variety of chemicals from one in-state facility and one out-of-state facility. The New Castle Wastewater Treatment Plant received the third highest amount. Cannon Iron and Metal received the fourth largest amount, for recycle, from one Delaware customer. The fifth largest amount was to the Kent County Wastewater Treatment Plant, receiving TRI chemicals in wastewater from three facilities. These five receiving facilities accounted for over 94% of all TRI chemicals received from in-state and out-of-state TRI facilities.

Pollution Prevention/Reduction Programs in Delaware

The Delaware Pollution Prevention Program in the Department of Natural Resources and Environmental Control (DNREC) facilitates the implementation of pollution prevention by industry, government and society. The Pollution Prevention Program (P2 Program) serves a non-regulatory function to provide information, technical assistance, training, and leadership on issues related to reducing and eliminating the generation of wastes and pollutants. The early years of the P2 Program concentrated on industry and its wastes. In recent years, the program has assisted all aspects of Delaware's society, including expanded efforts to schools, environmental, commercial and service organizations, and to State government itself.

Data for TRI reportable chemicals and other chemicals is becoming increasingly more available to the public. This public awareness has focused attention on the existence and quantity of these chemicals and on their management and possible reduction. Although EPCRA does not require a facility to reduce releases of chemicals reportable under its programs, many companies and facilities are aware of the public availability of the data in this and other EPCRA reports and have implemented programs to reduce or eliminate releases of these chemicals. These programs may take the form of efficiency improvements, reuse, recycling, energy recovery, or material substitutions. The benefits of these programs are reduced raw material and waste disposal costs and reduced risks associated with the toxic chemicals. Also, these reductions demonstrate corporate responsibility to the facility neighbors and improve the corporate image with the public.

There are numerous programs within DNREC that impact the management of TRI chemicals through the issuance of permits or through other regulatory and non-regulatory activities. Most releases reported under TRI are also regulated through air emission, water discharge, and/or land disposal permits. Potential sources of toxics undergo technical reviews through which potential threats to the environment and to human health are reviewed and identified prior to issuance of a permit. For example, the Engineering and Compliance Branch in the Air Quality Management Section enforces a provision in the Clean Air Act Amendment of 1990 that targets the control of hazardous air pollutants (HAPs). Nearly all HAPs are also reportable TRI chemicals. In addition, the Engineering and Compliance staff monitors TRI data to assess whether a facility complies with its Air Permits for TRI chemicals. Another example is the work performed by the Accidental Release Prevention (ARP) program. The ARP staff uses the TRI data to detect possible deficiencies at a facility that might result in an increased probability of an accidental release.

The Solid and Hazardous Waste Management Branch uses the TRI report to measure reductions of releases for the Waste Minimization Priority Chemicals list. The list is a result of EPA's Waste Minimization Program and has measurable goals that Delaware is working to attain. The DNREC Pollution Prevention (P2) Program offers consultations to any generator of hazardous waste that requests it. The consultation is non-regulatory and non-enforcement in nature, and is aimed at helping the company to reduce any and all waste streams, including the priority chemicals.

During 2007, DNREC's Air Quality Management Section monitored ambient air quality at nine locations around the State. For more information, please refer to the "For Further Information" section under the [Delaware Air Quality Report](#) on page 56 of this report.

DNREC has developed a new "Multi-P" regulation (Regulation 1146) that will reduce air emissions from Delaware's coal and residual oil-fired power plants. The reason for the new

regulation is to protect public health, safety, and welfare from pollutants which include nitrogen oxides (NO_x), sulfur oxides (SO_x), and mercury. A review committee made up of DNREC personnel, persons with environmental interests, persons impacted by the emissions from power plants, and power plant owners and operators assisted with the development of the regulation. The reduction in NO_x, SO₂, and mercury emissions will:

1. Reduce the impact of those emissions on public health;
2. Aid in Delaware's attainment of the State and National Ambient Air Quality Standard (NAAQS) for ground level ozone and fine particulate matter;
3. Help address local scale fine particulate and mercury problems attributable to coal and residual oil-fired electric generating units;
4. Satisfy Delaware's obligations under the Clean Air Mercury Rule (CAMR); and,
5. Improve visibility and help satisfy Delaware's EGU-related regional haze obligations.

NATIONAL PERSPECTIVE

The national 2007 TRI report has not been released by the U.S. EPA as of the writing of this report. However, placing the 2007 Delaware reports alongside the 2006 EPA reports yields some rankings that provide a perspective for Delaware in the national TRI picture. Changes in the 2007 national values may change these rankings.

This data shows that Delaware ranks 42nd in the nation in total on-site releases by state for all TRI chemicals. This is 0.28% of the total on-site release amounts nationwide. Releases can also be based on other criteria. Because Delaware has a small population and area, releases are spread over fewer people, increasing the ranking on a per-person or per-square mile basis.

State	Rank	Total On-Site Release (Pounds)	Rank, Based on Release Per Person	Rank, Based on Release Per Square Mile
Alaska	1	667,396,704	1	22
Ohio	2	229,882,265	14	1
Nevada	3	215,924,117	2	15
Delaware	42	10,654,109	23	2

The reported totals for thirteen states were each over 100 million pounds in 2006.

For on-site releases, 53 facilities in the nation each released more individually than all the facilities in Delaware combined.

Facility, State	Rank	Total On-Site Release (Pounds)
Red Dog Operations, Alaska	1	615,316,765
Kennecott Copper Mine, Utah	2	147,785,196
Phelps Dodge Miami, Arizona	3	57,515,751
All Facilities Combined, Delaware	54	10,654,109

Nineteen facilities each reported over 20 million pounds released on site in 2006.

For on-site release of **dioxins***, Delaware ranked 29th in the nation.

State	Rank	Total On-Site Release (Grams)
Mississippi	1	28,174.13
Michigan	2	25,797.46
Tennessee	3	11,187.71
Delaware	29	15.80

The reported totals for each of twelve states were over 100 grams released on-site in 2006.

* See pages 5 and 22 for notes on "Dioxins." The amounts reported do not differentiate between the highly toxic and the less toxic dioxins and dioxin-like compounds in this chemical group.

Thirty-five facilities each released more **dioxins* on-site** than all the facilities in Delaware combined. Two Delaware facilities, Evraz Claymont Steel (#55), and DuPont Edge Moor (#75) were in the top 100 for **on-site releases** of dioxins.

Facility, State	Rank	Total On-Site Dioxin Release (Grams)
DuPont Delisle Plant, Mississippi	1	27,823.58
Dow Chemical, Midland, Michigan	2	25,782.25
DuPont Johnsonville, Tennessee	3	11,143.54
Delaware, All Facilities Combined	36	15.80

Nineteen facilities each reported over 50 grams of **dioxins*** released on site in 2006.

*See pages 6 and 23 for notes on “Dioxins.” Delaware ranks #1 for **total production** of Dioxins. Almost this entire amount was transferred off-site to a permitted out-of-state landfill.

State	Rank	Production – Dioxin, Grams	Off-Site Transfer – Dioxin, Grams	On-Site Dioxin Release or Disposal - Grams (Rank)
Delaware	1	22,146.46	22,130.66	15.80 (29)
Mississippi	2	28,175.42	1.29	28,174.13 (1)
Michigan	3	25,797.46	78.71	25,876.16 (2)
Texas	4	9,734.78	14,776.02	24,510.80 (4)

Some facilities in Delaware do rank near the top of the national rankings for specific releases. DuPont Edge Moor ranks #1 in the nation for off-site transfer of dioxin and dioxin-like compounds, and Claymont Steel ranks #55 for on-site release of dioxins. Premcor ranks #2 nationally for all on-site releases for petroleum facilities (SIC 2911 or NAICS 324110), #25 for all U.S. facilities in release of nitrate compounds, and #43 for all U.S. facilities for release of cyanide compounds. Formosa Plastics ranks #4 in the nation for on-site release of vinyl chloride and #23 for on-site release of vinyl acetate.

No Delaware facility is in the top 100 for on-site release of mercury compounds. Occidental Chemical no longer ranks in the top 100 for on-site release of mercury (#82 for 2006), but is #4 in the nation for total off-site disposal of elemental mercury. Occidental Chemical closed their mercury-related chlor-alkali operation as of November 2005. The State of Delaware ranks #39 within the states for on-site release of mercury for 2007. The Indian River Power Plant ranks #47 and the Edge Moor/Hay Road Power Plant ranks #92 for on-site release of hydrochloric acid. Delaware is ranked #20 within the state rankings for on-site release of hydrochloric acid. Chrysler ranks #49 for on-site release certain glycol ethers, and General Motors ranks #50 for on-site release on xylene. The Indian River Power Plant ranks #78 within the coal and oil-fired electric generating facilities group (NAICS 221112, or SIC 4911, 4931, and 4939) for total on-site release of all TRI chemicals.

Again, these comparisons are made using the 2007 Delaware TRI data and the 2006 National TRI data, so changes in the 2007 national amounts may change these rankings.

Nearby Facilities in Adjacent States

Some facilities, although not in Delaware, may be important to the environment in Delaware. These facilities are located near our border and may release TRI chemicals, particularly to the air or water, which may migrate into Delaware. Starting on the next page is a listing of some nearby facilities with significant TRI release amounts. This data is from the TRI electronic facility Data Release (e-FDR) database using the 2007 reporting year data.

Nearby Facilities in Adjacent States

Facility	State	Chemical	Media	Amount (Pounds)
DuPont Chambers Works, Deepwater	New Jersey	Nitrate compounds	Water	4,110,000 **
DuPont Chambers Works, Deepwater	New Jersey	Sodium nitrite	Water	111,857 **
Deepwater Generating Station	New Jersey	Hydrochloric acid	Air	488,222
B.L. England Power Plant, Cape May	New Jersey	Hydrochloric acid	Air	235,532
Eddystone Power Plant, Chester	Pennsylvania	Sulfuric acid	Air	206,726
Sunoco, Marcus Hook	Pennsylvania	Ammonia	Air	318,907 **
Sunoco, Marcus Hook	Pennsylvania	Benzene	Air	20,967 **
Sunoco, Marcus Hook	Pennsylvania	N-Hexane	Air	30,670 **
Sunoco, Marcus Hook	Pennsylvania	Toluene	Air	51,011 **
Sunoco, Philadelphia	Pennsylvania	Ammonia	Air	271,761 **
Sunoco, Philadelphia	Pennsylvania	Benzene	Air	28,824 **
Sunoco, Philadelphia	Pennsylvania	Cumene	Air	48,787 **
Sunoco, Philadelphia	Pennsylvania	N-Hexane	Air	19,698 *
Sunoco, Philadelphia	Pennsylvania	Toluene	Air	36,892 **
Grace Davison Curtis Bay Works, Baltimore	Maryland	Ammonia	Air	217,300 **
Brandon Shores Power Plant, Baltimore	Maryland	Hydrochloric acid	Air	17,000,000 **
Brandon Shores Power Plant, Baltimore	Maryland	Sulfuric acid	Air	1,100,000 **
Salisbury Feed & Grain	Maryland	N-hexane	Air	189,000 **
Plymouth Tube, Salisbury	Maryland	Trichloroethylene	Air	78,000 **
U.S. Marine/Brunswick Boat, Salisbury	Maryland	Styrene	Air	39,812 **

* Near the Delaware state total for this chemical

** Exceeds the Delaware state total for this chemical

As noted on page 4, these amounts do not indicate the amount of human exposure. They do provide a comparison between releases in Delaware and some TRI chemicals released by some nearby facilities in neighboring states.

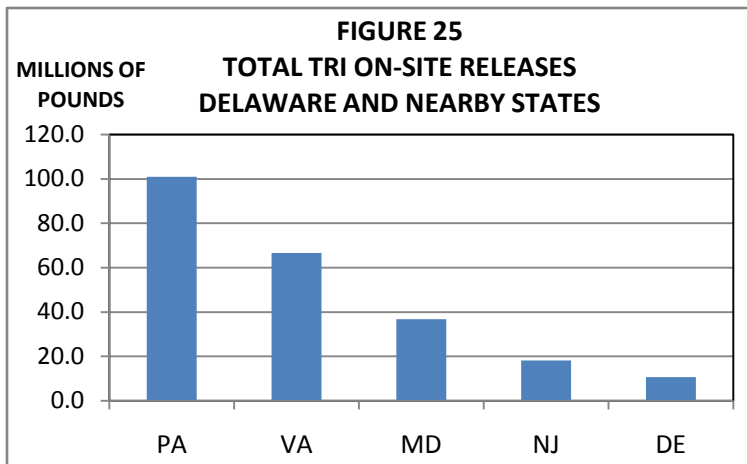


Figure 25 shows the magnitude of TRI on-site releases reported by neighboring states. This figure shows the amounts of on-site releases reported by four nearby states for 2006, the latest year for which state totals are available, and for Delaware for 2007. Pennsylvania reported an amount of 101,024,409 pounds of TRI chemicals released on-site for 2006.

International “TRI”

The United State's Toxics Release Inventory (TRI) is one of several similar programs established, or being established, by countries around the world. Industrial facilities in these countries are required to report their emissions and other waste management of toxic chemicals to databases in their respective countries. These databases are designed to track the quantities of chemicals that are released to the air, land or water, or transferred to another site for recycling, treatment or disposal. The term used internationally for these TRI-like systems is Pollutant Release and Transfer Register (PRTR). Corporate leaders, environmental advocates, policy makers and the public alike can use this PRTR information to track pollution performance and develop strategies to reduce emissions and protect our shared environment and improve quality of life.

Each country that develops a PRTR often expands on these basic elements. The U.S. TRI, for example, provides the public with data for on-site waste management of chemicals. The Canadian PRTR, called the National Pollutant Release Inventory (NPRI) collects data on the number of employees at each facility. Mexico implemented a mandatory PRTR, Registro de Emisiones y Transferencia de Contaminantes (RETC), which reported for the first time for 2004, but fewer chemicals are reported at this time.

In North America, the governments of the U.S., Canada and Mexico are working together to improve the ability to compare data from their three PRTR systems. This work is coordinated by the North American Commission for Environmental Cooperation (NACEC), an organization created with the North American Free Trade Association (NAFTA). The NACEC's work includes publishing an annual report titled *Taking Stock* that compiles and compares the PRTR data, and operating a searchable website of comparable North American PRTR data.

FOR FURTHER INFORMATION

Access to the TRI Files - DNREC is responsible for collecting, processing, and distributing information submitted by Delaware facilities under the TRI program. This 2007 TRI report may be viewed at: <http://www.serc.delaware.gov/reports.shtml>. Additional information not contained in this report is available to the public through the EPCRA Reporting Program located within DNREC. A second, less technical data summary is available at the same location. A searchable database is located at: <http://www.serc.delaware.gov/services/search/index.shtml>.

The reports submitted by facilities are available for review through the Freedom of Information Act (FOIA) process from DNREC's EPCRA Reporting Program located at 156 South State Street in Dover. Custom reports can also be generated from the database. For information on placing a request, call the TRI Coordinator at (302) 739-9405 during business hours. An on-line FOIA application is also available at: http://www.dnrec.state.de.us/air/aqm_page/foia.htm.

Chemical Data Fact Sheets - A two-page fact sheet is available for most TRI chemicals reported in Delaware and contains information on chemical characteristics, health hazards, and ecological effects. These fact sheets were prepared by the EPCRA Reporting Program from information obtained through EPA's more lengthy TRI chemical fact sheets. The two-page fact sheets are available upon request. Additional TRI chemical information is available at: www.epa.gov/triinter/chemical/index.htm.

EPA's TRI Home Page - The TRI home page provides information on the many facets of the TRI program at EPA, including an Executive Summary, Q&A's, a link now to the 2006 TRI data, and later this year to 2007 data, a current list of reportable chemicals, reporting forms, state and Federal program contacts, and various guidance documents available for downloading. This website has many links to other EPA and non-EPA sites associated with TRI: www.epa.gov/tri/.

Toxics Release Inventory Public Data Release - EPA's annual TRI report. It covers information nationwide and provides a good perspective on how Delaware compares to other states: www.epa.gov/tri/tridata/index.htm. The 2007 edition of this report will be available early 2009 and will be available for review at the DNREC office at 156 South State Street in Dover. It can also be obtained by calling the Federal EPCRA Information Hotline at 1-800-424-9346.

Envirofacts Electronic Warehouse - Envirofacts is an EPA-developed website that provides public access to multiple environmental databases, including TRI. Links are available to data about hazardous waste, water permits, drinking water, Superfund sites, air, water, toxics, and more. On-line queries allow the user to retrieve data and create reports, as well as generate maps: www.epa.gov/enviro.

Right-to-know Network (RTK NET) - Searchable nationwide TRI data is available through RTK NET. RTK NET was established by two non-profit organizations to provide access to TRI and chemical data, link TRI with other environmental data, and exchange information among public interest groups: www.rtknet.org.

Delaware Dept. of Public Health Cancer Rates and Causes - This site provides data and answers to many cancer-related questions: <http://www.state.de.us/dhss/dph/dpc/cancer.html>.

The Office of Pollution Prevention & Toxics is a part of the EPA that:

- Promotes pollution prevention as the guiding principle for controlling industrial pollution;
- Promotes safer chemicals through a combination of regulatory and voluntary efforts;
- Promotes risk reduction so as to minimize exposure to existing substances such as lead, asbestos, dioxin, and polychlorinated biphenyls; and,
- Promotes public understanding of risks by providing understandable, accessible and complete information on chemical risks to the broadest audience possible.

It is also a link to *Risk-Screening Environmental Indicators (RSEI)*. This model was developed by EPA's Office of Pollution Prevention & Toxics as a risk-screening tool that provides a relative comparison of TRI releases. This application is available on CD-ROM or through the Internet. Both of these are available through: www.epa.gov/opptintr.

Delaware's Pollution Prevention Program can be accessed at:

<http://www.dnrec.state.de.us/dnrec2000/p2/>.

Environmental Defense Fund Scorecard - The EDF Scorecard combines scientific, geographic, technical, and legal information from many databases (with emphasis on TRI) to enable users to produce detailed local reports on toxic chemical pollution. Chemical profiles and a map generator are also available through the Scorecard: www.scorecard.org.

Delaware Air Quality Report - The annual air quality report is prepared by the Air Surveillance Branch in the Air Quality Management Section of DNREC. This report presents data gathered from a statewide network of air monitoring stations, and includes analyses, trends, and other information regarding Delaware's ambient air quality. For a copy of the report, or for more information, please call (302) 323-4542. This report is available on-line at: www.dnrec.state.de.us/air/aqm_page/reports.htm. The EPA site for additional air quality information is: <http://www.epa.gov/oar/oaqps/publicat.html>.

Delaware's Department of Natural Resources and Environmental Control has a variety of environmental information, publications, and reports available at:

<http://www.dnrec.delaware.gov/info/pages/ELibrary.aspx>.

In addition to TRI, there are other provisions of the Emergency Planning and Community Right to Know Act (EPCRA), which provide information to the public as well as to local emergency planning and response organizations. Delaware has its own EPCRA statute which established these provisions under State law. For additional information, visit the Delaware EPCRA website at: <http://www.serc.delaware.gov/epcra.shtml>.

Questions or comments regarding the TRI program are welcome. Please direct questions, comments, or requests to:

TRI Coordinator
EPCRA Reporting Program
Emergency Prevention and Response Branch
DNREC Division of Air and Waste Management
156 South State Street
Dover, DE 19901
Tel. (302) 739-9405, Fax (302) 739-3106
E-mail: john.parker@state.de.us